DOCUMENT RESUME

ED 119 426 95 EC 081 556

AUTHOR Renzulli, Joseph S.
TITLE A Guidebook for Evaluating Programs for the Gifted and Talented. Working Draft.
INSTITUTION Ventura County Superintendent of Schools, Calif.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Office for Gifted and Talented.
PUB DATE 75
NOTE 209p.; A few pages may not reproduce well in hard copy due to small print
AVAILABLE FROM Ventura County Superintendent of Schools, County Office Building, Ventura California 93001, Attn: Mary Jane Chapman

EDRS PRICE MF-$0.83 HC-$11.37 Plus Postage
DESCRIPTORS Bibliographies; Conceptual Schemes; *Decision Making; Elementary Secondary Education; Exceptional Child Education; *Gifted; Guidelines; *Models; *Program Evaluation; *Student Evaluation

ABSTRACT

Intended for persons concerned with evaluation of programs for gifted children, the guidebook (in working draft form) provides information on purposes of program evaluation, evaluation models and concepts, designing an evaluation program, and selecting an evaluator. Pointed out are the author's biases against such practices as the overuse of the pretest/posttest approach to evaluation. In the first chapter the need and purpose of program evaluation is discussed, and special problems in evaluating programs for the gifted and talented are identified. Examined in the second chapter are five basic evaluation models and five concepts (such as formative vs. summative) or program evaluation. Detailed in the third chapter are examination of the decision making process and four steps in developing an evaluation design (from front end analysis to the preparation of evaluation reports). The final chapter focuses on selecting an evaluator and negotiating an evaluation contract. Highlighted throughout the book are basic references to the topics under discussion. Additionally, bibliographies are provided on the following: evaluation--issues, models, and methods; instrument source books; instrument construction; and measurement, statistics, and research design. Appended are sample instruments for assessing attitudes, student performance, and inservice training; and a sample evaluation contract. (DB)

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A GUIDEBOOK FOR EVALUATING PROGRAMS FOR THE GIFTED AND TALENTED

BY JOSEPH S. RENZULLI

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Administered by the Office of the Ventura County Superintendent of Schools, under the Education Professions Development Act, in cooperation with the Office of Gifted and Talented in the United States Office of Education.

This publication was prepared pursuant to a Grant from the U.S. Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

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A GUIDEBOOK FOR EVALUATING PROGRAMS FOR THE GIFTED AND TALENTED

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1975

EC081556

Acknowledgments

This book was made possible through the encouragement and support of the National/State Leadership Training Institute on the Gifted and Talented. David Jackson, the executive director of tne LTI, provided the writer with a complete set of documents on the evaluation of programs for the gifted and talented by conducting a computerized search of the Education Resources Information Center (ERIC). I am indebted to Dr. Jackson and his staff at the Clearinghouse on Handicapped and Gifted Children, Council for Exceptional Children, for conducting this search and making the documents available to me. Additional assistance was provided by Irving Sato, the director of the LTI, who conducted a nationwide survey for instruments that have been developed to evaluate programs for the gifted and talented. Some of the instruments derived through this search are included in the appendices of the ***Guidebook*** and I am indebted to those persons who generously allowed us to reproduce their material. I am further indebted to Irv Sato for his helpful suggestions and continuous feedback throughout the preparation of this material.

A number of my doctoral students at the University of Connecticut assisted me in the production of the ***Guidebook*** and I am grateful for each of their contributions. Kenneth Elterich helped by summarizing some of the evaluation models in Chapter Two and Barbara Gay Ford assisted in editing the preliminary manuscript. Special thanks are due to Linda Harris Smith for compiling the bibliographies, editing, and generally supervising the production and organization of several parts of the preliminary manuscript. The difficult task of typing, retyping, and sometimes re-retyping the entire manuscript rested in the very capable hands of Ann Mignon, and I am forever grateful for her conscientiousness and personal concern in preparing this work. Thanks also are due to Gary Zaremski, our student assistant who helped us in many of the details of production.

The drawings are the product of Johanna Sayre Schunmann, a truly gifted artist who was able to capture the essence of certain key concepts in evaluation and translate these concepts into the lively sketches that can be found throughout the ***Guidebook.*** I am particularly appreciative of her concern for adding to the comprehensibility of the content through the use of visual material.

Finally, I gratefully acknowledge the theorists who have influenced my thinking in evaluation and the school districts and state agencies that have provided me with the opportunity to become involved as a "front line" evaluator. If the ***Guidebook*** is of value to the reader it is due in no small measure to persons who have contributed to my theoretical and practical experience.

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How To Read This Book

When Irving Sato and David Jackson first asked me to prepare this ***Guidebook,*** I was really excited because it provided me with an opportunity to write about my combined interests in gifted education and program evaluation. But the initial excitement quickly gave way to a mild case of apoplexy as I began to gather together the resources that I would need for carrying out this assignment. In recent years, the literature on evaluation has multiplied a thousand-fold and the renewed interest in education for gifted and talented students has resulted in many new additions to the already voluminous literature in this area. I didn't want the ***Guidebook*** to be a replication or regurgitation of the many fine books and articles that have been written on program evaluation; and yet there were certain basic ideas and concepts from the literature that seemed necessary for a full understanding of the evaluation game. The problem was further complicated by the diverse backgrounds and different types of people who we anticipated would be using the book.

After rejecting the idea of running away to Tahiti, I decided to structure the ***Guidebook*** in a way that would serve several audiences, and at the same time, not require any individual to labor through the entire book. An attempt has been made to achieve this noble goal by dividing the content into chapters that answer particular questions for particular audiences. Thus, a person who has had a great deal of experience in evaluation work, but limited experience in programs for the gifted, can skip certain sections because they contain basic information with which he or she no doubt is familiar. This same person, however, may need to learn about some of the problems that are unique to evaluating programs for the gifted, and thus certain sections of the ***Guidebook*** will be relevant to his or her needs.

Before discussing the questions that each chapter attempts to answer, I would like to say a few words about (1) the five intended audiences of this book, and (2) a reference system that has been used throughout the book. The first audience might be best described as the would-be field evaluator. Although I envision this person as having had some background in measurement and evaluation, he or she is not typically a person who has done advanced work in this field and generally would not consider himself or herself to be an evaluation specialist. If a professional evaluator is not available, I consider the would-be evaluator to be a person within a school system or agency who will end up with the responsibility of designing and carrying out an evaluation study. Although it is hoped that the ***Guidebook*** will provide this person with enough information for carrying out most of the job, it would be naive to assume that all of the necessary information and resources he or she will need are contained herein. It is mainly for this person that I have developed the Basic Reference System which is described below. The ***Guidebook*** cannot possibly make the would-be evaluator a specialist in psychometrics, statistics, or research design. These are highly technical areas to which professionals have devoted entire careers. But, because we need expertise from these areas to carry out quality evaluations, I have tried to suggest the specific points at which the would-be evaluator should seek the assistance of specialists.

The second audience for whom the ***Guidebook*** has been designed is referred to in the following chapters as program people or program personnel. By this I mean persons within the school system or agency who are responsible for selecting an evaluator, making the evaluator aware of the program under consideration, developing an evaluation contract or agreement, and monitoring the work of the evaluator. The ***Guidebook*** will be most useful to this person or group because it attempts to provide a basic understanding of the problems of evaluating programs for the gifted, the options and alternatives that might be explored in developing an evaluation study, and the types of information they can expect to receive from an evaluation. For program people, communication is an essential responsibility – they must know enough about evaluation to negotiate meaningfully with a professional evaluator and to make certain that the evaluator serves their needs and answers their questions.

The third group of persons who may have an interest in the ***Guidebook*** consists of state department personnel and policy makers who are responsible for developing guidelines for the evaluation of programs for the gifted and talented. Unless persons who write guidelines are aware of the unique nature of programs for the gifted as they relate to designing and carrying out evaluation studies, evaluations may end up placing unreasonable and sometimes even restrictive demands on programs. I am familiar with cases where evaluations turned out to be nothing more than a mechanistic compliance with poorly conceived guidelines, and in these cases the evaluations served limited purposes in program improvement.

The fourth group of persons may, in certain cases, fulfill the same role as the group mentioned above. In this case, I have in mind state department consultants in the area of education for the gifted who are not ordinarily experts in the field of evaluation, but who frequently must provide the technical assistance necessary so that people at the local level can evaluate their own programs or negotiate with professional evaluators. Hopefully, the ***Guidebook*** will provide these persons with the know-how to render technical assistance and to monitor the quality of evaluation studies carried out within their respective states.

Finally, and at the risk of being somewhat presumptuous, I believe that the ***Guidebook*** will be of some value to the professional evaluator who has not had a great deal of experience in working with programs for the gifted and talented. To the professional evaluator, some of the sections in the ***Guidebook*** will be very elementary, but other sections hopefully will make him or her aware of the unique problems with which we are faced in working with gifted and talented youngsters.

In the past decade, more has been written on evaluation and accountability than perhaps any other single topic in education. One of the problems that I faced in preparing this ***Guidebook*** was how to provide the reader with a list of necessary references and background material. It is always easy for an author to throw in tons of references on particular topics, but this approach is not very economical in terms of the reader's time. I have tried to solve this problem by carefully screening the literature and selecting a relatively small number of basic references that strike right at the heart of the issues that will be discussed. The basic references, placed in boxes at points where I believe

they are highly relevant, are usually the most authoritative sources of information about particular topics or the most understandable treatment of highly technical information. Most of the basic references are relatively short and to the point. In cases where entire books have been recommended, they are usually source-books or reference books that are not intended to be read from cover to cover. In addition to the basic reference system, four topical bibliographies have been included that contain selected references in the following areas:

A. Evaluation: Issues, Models, and Methods

B. Instrument Source Books (Annotated)

C. Instrument Construction

D. Measurement, Statistics, and Research Design

The first chapter attempts to answer questions that will be raised about why we should conduct an evaluation and what are some of the special considerations that must be taken into account when we are evaluating programs for the gifted and talented. This chapter can be used as a rationale for planning evaluation studies and as a guide for the evaluator who has had limited experience in gifted education.

The second chapter contains basic information about evaluation models and concepts. Persons who are beginners in the area of evaluation will find this chapter helpful in learning the jargon of the trade and the language through which evaluators communicate with one another. The models described in Chapter Two represent the best known systems developed to date and the only systems developed specifically for programs for the gifted. Persons with extensive experience in evaluation will probably want to skip this chapter because it is essentially a summary of very well-known models and concepts.

The third chapter describes a particular system of evaluation that represents a synthesis of my experience in working with programs for the gifted and talented. Although it is not quite a cookbook, it does lay out very specific steps that can be followed in planning and carrying out an evaluation. A major part of this chapter deals with the always troublesome task of selecting and/or constructing appropriate instruments. This chapter will, in all probability, be of most value to the would-be evaluator who must walk into work one morning and actually begin to conduct an evaluation study. It is intended to be as practical as one can get in a guidebook that might be used for a variety of programs.

The final chapter deals with some of the business aspects of evaluation. It points out issues that should be considered in selecting an evaluator, developing evaluation proposals, and negotiating evaluation contracts. This chapter is intended to help program people strike a good deal with an evaluator; and at the same time, it is intended to help the evaluator arrive at agreements that may be necessary for him to carry out his responsibilities.

A Note on Point-of-View

A guidebook of this type will quite obviously reflect certain beliefs and points-of-view on the part of the writer. There are essentially three areas in which I have expressed opinions that may not be universally shared by other persons writing in the field of evaluation. These points-of-view are based on

my experience in working with programs for the gifted and talented and the problems that I have encountered as a front-line evaluator in this area.

First, I am not a strong advocate of the traditional pretest/post-test approach to evaluation so far as programs for the gifted are concerned, nor do I believe that the rigid behavioral-objectivies approach is especially appropriate for evaluating programs that focus on higher level objectives. In my opinion, these approaches have placed too much emphasis on evaluating students rather than the programs that should be serving students. Program evaluation is a broad concept that embraces many kinds of information. If we restrict our activities to test score analysis only, we may be guilty of judging the consumer rather than the service that has been provided to him or her. For reasons that will be pointed out in the chapters that follow, I firmly believe that people in gifted education must take the lead in breaking down the let's-give-a-lot-of tests mentality that has characterized (and plagued, in many cases) the field of evaluation for many years. The "accountability boys" are trying to force rigid models on programs that are straining to be free and open; and when this happens, the tail ends up wagging the dog. I believe that the role of evaluation is to serve programs rather than to force them, however subtly, into being convenient vehicles for the evaluator's bag of tricks.

My second bias is that regardless of who hires and pays the evaluator, he must have the best interests of the consumer (student) at heart—he must view himself as an evaluator ***for the people*** rather than for the institution that provides the services to people. While we cannot be politically naive in designing evaluation studies, we also should never forget that an honest evaluation is impossible unless the best interests of the consumer are first and foremost in our minds.

Finally, I believe that evaluation is basically a simple process that need not be shrouded in complicated language, statistics, or the jargon of psychometrics. When we blow away the nostalgic dust that surrounds the evaluation mystique, we find an essentially logical process that should not be over-elaborated upon, nor should it be an end in and of itself. People usually raise simple, straightforward questions and the evaluation should attempt to provide simple, straightforward answers.

CHAPTER ONE: Evaluation! Who Needs It?

I. The Need for Program Evaluation – A Matter of Support and Survival

Did it do any good?

Was it worth the time and effort?

Was it worth the money?

Is it working as we expected?

Is this approach better than some other method?

These are questions that are being asked with increased frequency as schools pursue what sometimes seems to be the impossible dream of providing each student with the very best possible learning environment for his or her particular needs. Although special provisions for the gifted and talented are an essential part of any school program that truly respects the principle of individual differences, the competition for limited resources among all types of supplementary programs frequently causes the needs of the gifted to be relatively low on the list of educational priorities. When school budgets are "cut" it is not unusual for the gifted program to be one of the first items to be eliminated. And when boards of education, legislatures, and other sponsoring agencies review the many special programs for which they are called upon to support, the very survival of programs for the gifted may depend on having evaluation information readily available. All too often, evaluations have been launched as last-ditch efforts to save programs that are in danger of being eliminated or sharply reduced in the amount of support they receive from sponsoring agencies. Although a hastily conducted evaluation may be better than no evaluation at all, the best weapon in the battle for program support and survival is a carefully planned and comprehensive evaluation that will accurately document all aspects of the services being provided for gifted and talented youngsters. Evaluation should be an essential and ongoing part of total programming and each step of the planning and development phases of a program for the gifted should give careful attention to the ways in which evaluative information can be gathered, organized and presented to decision making individuals or groups.

The need for program evaluation in gifted education has grown out of a general concern on the part of decision makers for greater accountability in all aspects of education. In the past, innovation in education and especially efforts to help youngsters with unusual needs such as the gifted and talented were looked upon with a strangely philanthropic attitude. We accepted the notion that innovative efforts equaled innovation itself – that sincere and honest attempts to improve the education of gifted students were *de facto* indicators of favorable results. In other words, the attitude of "trying equals success" often caused us to minimize the need for program evaluation and, indeed, this attitude sometimes served as a substitute for evaluation. The person who was bold enough to raise serious questions about the value or quality of a particular program was frequently looked upon as some sort of malcontent, especially if the program in question was cloaked in the mantle of innovation, launched with great fanfare, and happened to be the "brain child" of an influential group or well-known "expert" in the educational establishment.

Programs for the gifted have been especially vulnerable to substituting the "trying equals success" attitude for rigorous attempts to evaluate program effectiveness. Innovative approaches to learning are frequently used with gifted youngsters and many programs for highly able students are characterized by "flashy" activities, materials, and student products. If you want to see "great things" happening in a school, visit the classroom or center for the gifted. If you want to see outstanding short stories, or poetry, or science projects look at those that have been produced by gifted and talented youngsters. Gifted students, ***because*** they are gifted, have the capacity for high level performance and their products are often of superior quality. But the nagging questions the evaluator must always examine are: "What types of programmatic learning experiences fostered this outstanding performance? Was the performance really attributable to the program or did it emerge simply because the child was gifted and we had the good sense to stay out of his way?"

In recent years the unprecedented expansion of innovative approaches to learning and the rapid development of educational technology have provided educators with a wide variety of alternatives that can be used in programming for students with special needs. But the availability of these alternatives has also given rise to many questions that can only be answered through systematic program evaluation. These questions generally deal with the appropriateness and effectiveness of various learning materials, teaching strategies, and approaches to program organization and management. Fortunately, the technology in educational measurement and evaluation has also undergone a period of increased growth and development. The greater sophistication and availability of evaluation methods has provided us with some of the tools necessary for documenting the value and effectiveness of programs for the gifted. The purpose of this book is to summarize some of the models, materials, and techniques that can be used by persons who are charged with the responsibility of evaluating programs that serve gifted and talented youngsters.

II. The Purpose of Program Evaluation

A. The Importance of Decision Making

The general purpose of evaluation is to gather, analyze, and disseminate information that can be used to make decisions about educational programs. Evaluation should always be directed toward ***action*** that hopefully will result in the improvement of services to students through the continuation, modification, or elimination of conditions which effect learning.

It should be emphasized that the conditions which effect learning are not necessarily restricted to the instructional process. For example, if admission to a special program for ***artistically*** talented youngsters is largely dependent on IQ test scores, the evaluator may want to investigate the policies underlying the identification system and the effectiveness of the screening and selection procedures.

Economy and efficiency can be improved in an evaluation design if we begin by raising three interrelated questions:

1. Who are the decision makers at various levels of possible action?
2. Over what actions do decision makers have control?
3. What information is necessary for making decisions?

Perhaps the best way to illustrate the interrelatedness and the importance of these questions is by developing a hypothetical example. Let us suppose that we are evaluating an anthropology program for gifted students in a junior high school. The program involves several trips to various city dumps where students attempt to study differences between communities by analyzing the types of objects people discard. Supplementary expenditures

"ONE THING FOR SURE – THIS ISN'T A DRY TOWN!"

are necessary for transportation, insurance, reference books, and a consultant in anthropology. Who are the decision makers and over what actions do they have control? The board of education must approve the supplementary funds and therefore continuation of the program (action) rests with them. Let us speculate that one question with which the board is concerned is whether or not parents are satisfied with the program. One segment of the information necessary for decision making thus becomes parental attitudes. This information might be gathered through the use of a questionnaire and/or interviews with a random sample of parents.

Another decision maker in this situation might be the school principal. It may be up to him or her to decide when the trips take place and whether or not any problems are resulting because students must be excused from

some of their regular classes. The principal may require information about student performance and conscientiousness in completing regular classroom work that they may have missed as a result of participating in the special program. This information will help determine if the program should take place during school hours or at some other time. It may also reveal some unexpected findings such as hostility toward the program on the part of certain teachers. In this case the evaluator might want to recommend that greater efforts be made to familiarize the general staff with the nature of the program, why it is being provided for gifted students, and how the program fits into the general philosophy and objectives of the total school program.

Finally, the teacher and consultant in anthropology are decision makers in this situation because they have control over actions which relate directly to possible modifications in the instructional process. They may require information about the students' knowledge in anthropology and their ability to analyze data in social science. The teacher may also want to obtain information about student satisfaction with the program and his or her own success in working with gifted youngsters. Thus, tests, student questionnaires, and rating scales will be needed to help the teacher and consultant make decisions about how they might like to modify the instructional process.

The interrelationship between evaluation, decision makers, and alternative types of programmatic action are depicted in Figure 1. Although this figure

Figure I

FIGURE 1. RELATIONSHIP BETWEEN EVALUATION INFORMATION, DECISION MAKERS, AND ACTION FOR PROGRAM IMPROVEMENT.

points out the influence of evaluation information on decision makers, it would be naive to assume that subjective values and attitudes do not also play an influential role in this process. When planning a program evaluation, efforts should be made to gain an awareness of the personal and organizational values that may influence important decisions. Such an awareness will enable the evaluator to gather and perhaps emphasize types of information that might be influential in combating a negative attitude toward a program or a particular aspect of a program. For example, if a school board member(s) feels that programs for the gifted encourage "elitism" on the part of participating students, the evaluator may want to place added emphasis on this component of his investigation. Although values and attitudes are difficult to change, an awareness of their existence will at least give the evaluator an opportunity to seek out information that might be influential in modifying attitudes.

By way of summary, decision making is a fundamental goal of evaluation and therefore it is important to identify decision makers and the actions over which they have control at the beginning of any evaluation endeavor. Since the structure and focus of an evaluation should be guided by the decision-making process, it is recommended that this process be analyzed during the planning phase of an evaluation. The evaluator and decision makers should work closely together in an attempt to identify the parameters of change over which each decision making individual or group has control. A discussion dealing with analyzing the decision-making process is presented in Chapter III. It should be pointed out that some changes may be under the control of more than one decision-making individual or group. However, an analysis of the areas of responsibility will help to clarify contingent relationships among decision makers.

BASIC REFERENCE on Educational Decision Making

A thorough treatment of the decision making process and decision-making models is presented in:

Stufflebeam, Daniel L., ***et al.*** Chapter 3: "Educational Decision Making," in ***Educational Evaluation and Decision Making.*** Itasca, Illinois: F. E. Peacock Publishers, Inc., 1971, pp. 49-105.

B. The Objectives of Program Evaluation

Within the general decision-making purpose of program evaluation discussed above, there are a number of more specific objectives which help to give direction to the actual design of an evaluation. At this point, however, it is important to emphasize that the purpose of an evaluation is ***NOT*** to come up with a simple score or rating that attempts to express the success or failure of a given program. An evaluation is scarcely worth the paper it is written on if it does not provide relatively specific information that supports the maintenance, modification, or termination of ***particular*** program components. Thus, an evaluation should be "diagnostic" in the sense that it pinpoints by careful examination the circumstances and conditions

that result in identifiable changes in performance, attitude, or other indicators of program effectiveness. In order for an evaluation to play a constructive and positive role in the overall process of education, it should attempt to fulfill as many of the following objectives as possible:

1. To discover whether and how effectively the objectives of a program are being fulfilled.
2. To discover *un*planned and *un*expected consequences that are resulting from particular program practices.
3. To determine the underlying policies and related activities that contribute to success or failure in particular areas.
4. To provide continous in-process feedback at intermediate stages throughout the course of a program.
5. To suggest realistic, as well as ideal, alternative courses of action for program modification.

The first of these objectives is considered by many persons to be the major responsibility of the evaluator. The stated objectives of a program generally reflect the educational values and attitudes underlying a program. Although it is important to determine the degree to which each objective is being achieved, it is equally important for the evaluator to discover both positive and negative outcomes that are essentially unplanned and, therefore, not stated in the objectives. For example, in an evaluation of a special program for gifted high school students it was found that the program was influential in helping a large number of students to clarify their career choices. A small number of students also reported that their involvement in the program had caused them to give up the use of marijuana! While neither of these outcomes were included in the stated objectives of the program, they nevertheless provided powerful support for the continuation of the program.

The distinction between stated objectives and anticipated outcomes on one hand, and unexpected and unplanned consequences on the other, raises a serious theoretical issue in program evaluation. Briefly and simply stated, this issue revolves around whether the evaluator should have the right and obligation to investigate all aspects of a program or whether his work should be restricted to an assessment of stated objectives. Although most contemporary evaluation theorists would agree that measuring the attainment of objectives is the most important goal of an evaluation, they would also support the position that the evaluator must be free to investigate any and all conditions that may influence the effective operation of a program. If the evaluator is told "where to look" and "what to look at" he may very well *over*look important factors contributing to the success or failure of particular aspects of a program. Therefore, the position taken here is that any activity or condition which may have a direct or indirect impact on a program is "fair game" for the evaluator.

The third objective of program evaluation listed above—to determine underlying policies and related activities that affect a program—calls attention to the fact that a successful program is frequently the result of policy decisions and actions that may influence instruction, but are not a direct result of instruction itself. For example, the procedures by which teachers are selected for a program may be based on a policy underlying teacher selection. This policy may be formal and written or it may simply exist in the minds of persons who are responsible for selecting teachers. But nevertheless, the policy (or lack of a policy) could have a

serious impact on the program. Take, for example, a program in which teachers are selected on the basis of longevity or seniority rather than superior teaching ability. This policy may result in the haphazard selection of teachers, and if ineffective teachers are chosen the program may be doomed to failure long before students enter the classroom.

Other non-instructional factors, such as planning and program management should also be evaluated. The following example taken from an actual evaluation illustrates how non-instructional factors may influence a program. In the evaluation of a six-week summer program it was found that the supplies and materials did not arrive until the beginning of the fourth week of the program. Upon further investigation it was determined that this condition was due to poor planning and had, in fact, happened two years in a row. Although the tardiness of supplies and materials certainly influenced instruction, the major recommendation growing out of this finding clearly related to planning and management on the part of the project director. (This finding, coupled with other consequences of poor management, ultimately led to the dismissal of the project director.)

The fourth objective of program evaluation—to provide continuous feedback throughout the course of a program—calls attention to one of the basic distinctions between evaluation and research. This distinction is concerned with the responsibilitiy for suggesting changes in program activities while the program is in progress. Generally, the researcher is interested in judging the effectiveness of a predetermined, carefully controlled, and relatively specific "treatment." He is concerned with the generalization and replication of a prescribed activity, and therefore he is obligated ***not*** to interfere or make suggestions while the prescribed activity is taking place. The evaluator, on the other hand, is concerned with program improvement and he is obligated to provide continuous feedback so changes and modifications can be made as a program progresses. Just as a ship's captain can miss his final destination by a wide margin if he fails to make small navigational corrections when his boat is off course by a few degrees, so also can a program "miss" its goal if the director does not recognize problems when they occur and take whatever action

may be necessary to correct them. Continuous monitoring will help to nip many problems in the bud and avoid the kind of dissatisfaction that builds up when even the smallest problem is left unattended. Evaluators who employ the researcher's traditional pre-post measurement design without providing in-process feedback may be guilty of letting students "suffer through" experiences that ultimately will reflect negatively on the program in general.

The final objective listed above—to suggest realistic as well as alternative courses of action—is concerned with the usefulness of evaluative findings. Realistic suggestions are those that take into consideration such predetermining conditions as the availability of funds and human resources, the prevailing political climate, attitudes toward certain types of programming on the part of key decision makers, and how a program for the gifted can work harmoniously within the overall framework of a particular school or school system. There would be little value in making a recommendation that requires a $100,000 outlay if the evaluator knows full-well that this money is not available. Similarly, an evaluator is being unrealistic if he recommends that an entire school system change its scheduling procedures because it is not meeting the needs of the gifted. Such recommendations are evaluation "cop-outs" unless the evaluator also suggests some alternatives that are within existing resources or within the realm of ***possible*** action on the part of decision makers.

To summarize, there are a number of objectives that can serve as guides to a comprehensive and systematic evaluation. An evaluative study that achieves all of the objectives discussed above will undoubtedly provide the kind of information necessary for decision making.

III. Special Problems in Evaluating Programs for the Gifted and Talented

A. The Problem of "Higher Level" Objectives

Programs for the gifted are often characterized by a commitment to the development of higher powers of mind and advanced levels of awareness, interest, and other affective behaviors. This presents a somewhat unique problem for the evaluator because these objectives cannot be measured as easily and precisely as those objectives which deal mainly with the acquisition of basic skills. As we move up the scale of learning behaviors, from the simple acquisition of knowledge to the development of higher mental processes, it becomes increasingly difficult to find measuring instruments that meet the scientific and practical requirements necessary for good evaluation studies. While virtually dozens of relatively valid and reliable tests are available to measure skills in the traditional areas of school avhievement, instruments for evaluating higher level processes of objectives are not so readily available. In areas where these instruments have been developed (e.g., the ***Torrance Tests of Creative Thinking***) they are often expensive to administer and/or score, and therefore their use in an evaluative study may be economically unfeasible.

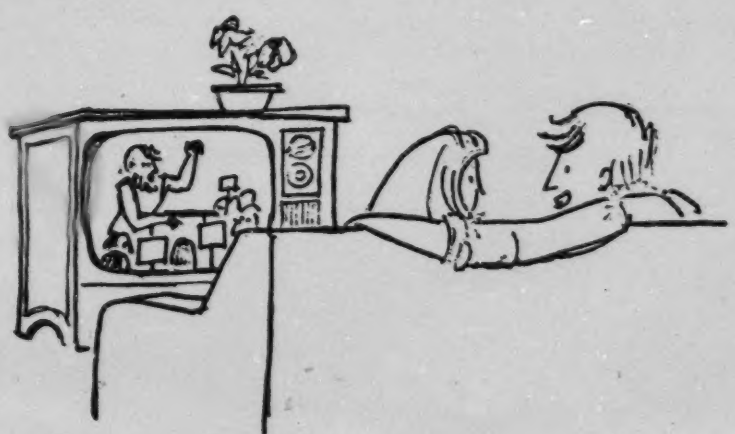
A second dimension of this problem is that gifted programs are frequently characterized by highly individualized objectives for each student. Whereas a reading skills program for average or slow learners may have enough uniformity in its objectivies to warrant large scale standardized testing, a program for gifted students may have many ***different*** objectives for each student. The reliability of most standardized tests is a function of group size and it is extremely difficult to show statistically significant pretest to post-test gains when only a few students

are being evaluated with a given instrument. Standardized tests can, of course, be effectively used in evaluating programs for the gifted if they (a) are valid (appropriate) measures of particular objectives, and (b) if they are used in situations where reasonable levels of reliability can be obtained. But when a teacher devises individualized objectives for each child, as is often the case in programs for the gifted, then we must seriously question the appropriateness of tests based on systemwide or nationwide objectives.

In recent years there has been a great deal of concern in education about the specification of objectives in terms of observable and measurable student behaviors. Many evaluators have looked upon the "behavioral objectives model" as a panacea for conducting evaluation studies. However, the nature of gifted programs and their concern for developing higher thought processes may make this model too cumbersome to be practically applied to programs for the gifted and talented. In fact, when the behavioral objectives approach is used in its most rigid form, it may even force program developers to focus their attention on the trivial rather than important behaviors of superior learners.

The rigid behavioral objectives model is inappropriate for programs for the gifted because it forces us to be primarily concerned with those behaviors that are easily measured. Such a situation may result in the tail wagging the dog. Michael Scriven, the single-most influential person writing on educational evaluation today, has pointed out that "putting pressure on (a person) to formulate his goals, to keep to them, and to express them in testable terms may enormously alter his product in ways that are certainly not always desirable" (Scriven, 1967, p. 55). Here is an example of a rigid objective taken from a book written by a well-known objectivist:

> At the conclusion of three hours of instruction at least 75 percent of the students will be able to deliver a 15 minute extemporaneous speech violating no more than two of the twelve "rules for oral presentation" supplied in class as judged by a panel of three randomly selected classmates using the standard rating form (Popham, 1972, p. 16).



AND WE NEVER THOUGHT HE'D MAKE IT THROUGH SPEECH CLASS.

Let us raise a few questions about this objective:

> Suppose some students need more ***or*** less than three hours of instruction?
>
> Suppose some students would rather formulate their ***own*** rules for oral presentation for a ***variety*** of speaking situations?
>
> Suppose some students don't like to give extemporaneous speeches?
>
> And suppose, heaven forbid, some students don't give a darn about the rules for oral presentation? (I wonder what Eric Hoffer, or Will Rogers, Bob Dylan or Stokely Carmichael would think about the "rules for oral presentation.")
>
> And finally, are we making the best use of ***all*** children's time when we force them to listen to and fill out rating forms on extemporaneous speeches that other children have been ***forced*** to make – extemporaneously, of course?

Perhaps this model is appropriate for certain kinds of learning in the basic skill areas, but as far as gifted students are concerned, it may be putting a strait-jacket on the types of learning experiences which they will be allowed to pursue. Thus, it is the very nature of the objectives of gifted programs that make the rigid behavioral objectives model inappropriate. In gifted education we talk about some pretty "high-falutin" objectives; objectives such as creativity and critical thinking and problem solving. We talk about types of learning that may lead to analyzing a moral principle, or synthesizing a political argument, or evaluating a philosophic point of view. We talk about producing unique plans, communication forms, and ideas. And we also talk about some relatively sophisticated non-cognitive objectives such as developing favorable attitudes toward learning, or developing acceptance of and even appreciation for opposing points of view, or showing a commitment to a cause by taking affirmative actions. Although many experts in the testing business believe that these complex objectives can be evaluated, Robert Stake, one of America's foremost authorities on evaluation (Stake, 1973, p. 199), has suggested that the total cost of measuring such objectives may be one hundred times that of administering a forty-five minute standardized paper-and-pencil test; and the amount of time, personnel, and facilities necessary for such evaluation may be astronomical. Stake also points out (Stake, 1973, pp. 196-199) that the errors of testing increase markedly when we move from highly specific areas of performance to items which attempt to measure higher mental processes and unreached human potential. According to Stake, the only reason we have tolerated the test error in standardized instruments is because very few important educational decisions are ever based on test scores alone.

Stake goes on to point out that the behavioral objectives model of program evaluation became very popular as part-and-parcel of the performance contracting movement – an ill-fated attempt "to substitute technical procedures for personal attention" (Stake, 1973, p. 194) in teaching, especially teaching directed toward remediation among so called disadvantaged students. The many problems which have beset the performance contracting movement are well documented in the literature on measurement and evaluation, and for these reasons we should be very cautious in considering the behavioral objectives evaluative model for gifted education.

B. Measurement and Statistical Problems

Measurement and formal testing often play a major role in evaluation studies, but certain cautions are necessary when we consider the use of standardized tests in evaluating programs for the gifted. In addition to the measurement problems implicit in the above discussion on "Higher Level Objectives," problems often arise when we attempt to use norm referenced tests developed for general populations. Conventional standardized tests are based on the normal distribution curve and for this reason the equality of units of measurement is open to serious question. The main issue in using age, grade, or percentile norms is that we cannot assume that a year's growth or growth in a given number of percentile points is a uniform unit. Thus, for example, if the performance of an average student increases from the 40th to the 50th percentile over the course of a school year, we cannot assume that this is a greater gain than that made by a gifted student whose score increased from the 90th to the 95th percentile. The gifted student initially scored at the upper end of the normal curve where it is much more difficult to show an increase in percentile score points. The same is true for age and grade scores. Generally, there is a slowing down of gains at the upper levels of most performance tests that were normed on the general population. For this reason, when the evaluator uses standardized tests, he should avoid making comparisons between gifted students and other populations. This can be done by developing separate sets of norms for each distinct population whose growth is being evaluated, provided of course, that the test has a broad enough range to allow students to show maximum growth. If a test does not have enough "top" in it, highly able students may score at the upper limits, but we will be unable to determine their true growth because of the low ceiling of the test. Since many standardized tests are designed to provide achievement information for the vast middle ranges of ability, their content and interpretive data may not be valid for children who deviate markedly upward from the mean.

BASIC REFERENCE on Inequality of Norms

A thorough and yet highly readable discussion of cautions in the use of norms can be found in:

Thorndike, Robert L. and Elizabeth Hagen.

Chapter 7: "Norms and Units for Measurements," in ***Measurement and Evaluation in Education and Psychology.***

New York: John Wiley and Sons, Inc.
1969, pp. 210-243.

The use of conventional tests with gifted and talented students also presents some problems in the statistical treatment of evaluative data. As was pointed out earlier, test reliability is a function of group diversity—the more heterogeneous the group the higher the reliability. Since gifted groups frequently are, by definition, relatively homogeneous groups, and

therefore frequently show a narrower range of test scores than the population in general, we should be extremely cautious when viewing the reported reliabilities of standarized tests. Unfortunately, most test publishers do not report reliabilities for subpopulations within their standardization sample and therefore it may be necessary to conduct a "local" reliability study whenever conventional tests are used with special populations.

One of the major statistical problems encountered when working with the test scores of superior students is the well-known "regression toward the mean" effect. Although this is a complicated statistical phenomenon, simply stated it means that predicted scores tend to "move in" toward the mean of the distribution. Thus, if we are using a pretest and post-test design to evaluate the effects of a program for the gifted, and it the students' scores on the pretest are initially high, it is quite likely their post-test scores will actually decrease due to the regression effect. It is for this reason the evaluator must exercise a great deal of caution when considering the pre/post design and other statistical designs that do not take into account the lack of normality in the distribution of gifted students' test scores. When pretest and post-test scores are used, it may be necessary to explore the use of nonparametric statistics or multivariate methods of analysis.

BASIC REFERENCE on Problems in Evaluating Special Populations

This article was written mainly for persons who are concerned with evaluating programs for the physically and mentally handicapped; but because it deals with populations that frequently do not conform to the normal distribution curve it is applicable in many respects to our concerns with gifted students:

Jones, Reginald L. "Accountability in Special Education: Some Problems," ***Exceptional Children,*** 1973, 39, 631-642.

C. Practical Problems

The evaluation of programs for the gifted, like evaluation in all other areas, requires time, money, and trained personnel. When evaluation is "tacked on" to a program as an afterthought, and when the human and financial resources necessary for carrying out a comprehensive evaluation are not available, the evaluator may very well end up being asked to do the impossible. Even when time and resources are available, the evaluator is frequently called upon to develop a plan of evaluation for programs with poorly defined objectives and a very limited conception about what will constitute a successful program. Although these are practical problems they can, nevertheless, have as much influence on the value and quality of an evaluative study as the measurement and statistical problems discussed above. Indeed, practical problems more often than not underlie or give rise to more complicated problems in measurement and design.

What can be done about practical problems in evaluation such as time, money, and personnel? The answer to this question often rests with persons who are responsible for drafting the guidelines for special programs and/or those persons who actually develop the programs. While it seems almost trite to say that provisions and resources for evaluation should be included or "written into" guidelines and proposals, the fact is that without such provisions evaluation becomes a game (sometimes even a farce) that can serve very limited purposes. Many evaluation specialists have now reached the point where they are simply saying that a program may be "unevaluatable" because program planners have not given serious attention and resources to the evaluation component. In Chapter Three of this guidebook, attention will be given to developing guidelines for evaluation that can be used in preparing state plans for programs for the gifted.

Almost all writers in the field of evaluation have stressed the importance of involving the evaluator from the very beginning of any educational endeavor. Through such involvement, the evaluator can continually bring to the attention of program developers the steps that must be taken and the resources that must be allocated if evaluation is to serve useful purposes. Early and continuous involvement on the part of the evaluator will help to overcome many of the difficulties that arise when evaluation is tacked-on as an afterthought, but we would be naive if we did not recognize a practical problem that may arise as a result of the evaluator's influence. This might be described as "the-tail-wagging-the-dog" problem. In his efforts to develop a "respectable" evaluation design, the evaluator may "steer" a program in very subtle ways. For example, if the evaluator insists upon using certain standardized tests to assess the effectiveness of a particular program or practice, the teachers may very well end up "teaching the tests,"or at least modifying their ***intended*** teaching activities because they feel the threat of evaluation hanging over their heads. There is no easy way to resolve the dilemma that often exists between the evaluator's need to be rigorous and scientific and the program developer's desire to be innovative and flexible in programming for gifted and talented students. A basic guide, however, should be that the program determines the type of evaluation design and the instruments to be used, and that it is the evaluator's responsibility to respect the integrity of the program when he is planning his evaluation activities. This does not mean that the evaluator should not make suggested changes while the program is in process (See section on Formative Evaluation), but these suggestions should grow out of findings about the program as it exists in its "natural" form rather than as a result of the evaluator's influence on the program.

BASIC REFERENCE on Problems and Issues in Evaluation

A few years ago, I became particularly frustrated about the many problems associated with program evaluation. In sheer exasperation, I picked up my pen, dipped it in blood, and wrote the following paper. It points out some of the basic problems about which the evaluator should be aware.

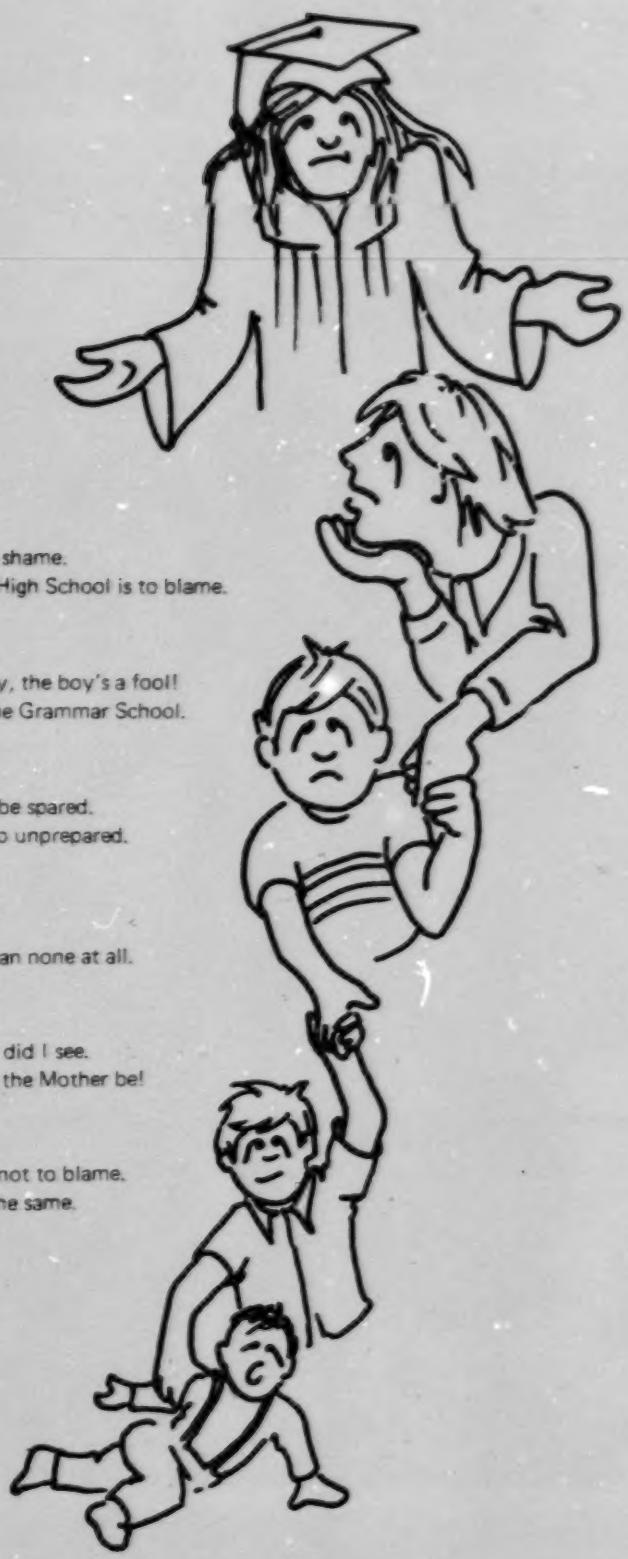
Renzulli, Joseph S. "The Confessions of a Frustrated Evaluator," ***Measurement and Evaluation in Guidance.*** 1972, 5, 298-305.

Another practical problem relates to the attitude that many educators hold toward evaluation. Teachers and other professional personnel often view evaluation as a means of controlling or checking up on a program and the persons responsible for operating a program. In short, evaluation can be a very threatening affair that might result in some rather harsh actions, especially if the evaluation is mandated by a decision-making body or outside funding agency.

In the early days of the evaluation business, we focused almost totally on the measurement of growth in students, usually through the use of standardized achievement tests. To evaluate students was fine, but to evaluate ourselves was nothing less than educational heresy. "I certainly wouldn't want to be held accountable," says the perceptive teacher, "if my class doesn't make sufficient gains on a standardized test. If their last year's teacher has prepared them poorly in areas that are measured by the tests, why should *I* be held accountable. After all, I'm only one pair of hands on the assembly line and if the end product isn't too good, you can't place all the blame on me." This is a favorite argument when people talk about teacher evaluation through student performance. And yet, we need the cooperation and assistance of teachers and other educational personnel if we are to obtain accurate and undistorted evaluative information. This is, indeed, a sticky problem for the evaluator who may, for example, end up in the position of asking a program director for cooperation in gathering evaluative data that might lead to criticism of the director or perhaps even result in the director's dismissal!

Although negative or at least cautious attitudes toward evaluation are not easy to overcome, it is important for the evaluator to take steps toward dealing with this problem. The most obvious action that can be taken with regard to this problem is to create a positive atmosphere of helpfulness rather than destructiveness. The evaluator should point out that he wants to report the "good things" that are happening in a program just as much as those aspects of a program that are in need of change. He should also explain his role to teachers and administrators in terms of the ways in which he can help each particular group. He might, for example, say to teachers: "I can act as an omnibusman or intermediary between you and the decision makers by helping to make your needs and concerns known to the administration or the board of education." Unless persons being evaluated can see some value and benefit ***for themselves*** as a result of participating in an evaluative study, they are likely to approach the process halfheartedly; or even worse, they may actually try to distort evaluative information.

The evaluator must walk a very thin line in the process of gaining the acceptance and cooperation of persons over whom he may eventually have to pass judgment. A friendly and cooperative atmosphere is very important; but at the same time, the evaluator should not forget that his major concern is how effectively a program is serving students. An evaluator who trades friendly relations with professionals for a primary concern for students may end up losing some of the "clout" that is necessary to bring about program improvement. In spite of all of the rhetoric about friendly and cooperative relations between evaluator and staff, the fact remains that the evaluator may sometimes have to recommend actions or changes unpleasant to the persons who sponsor and



POOR CHILD*

College Professor:

Such rawness in a pupil is a shame.
Lack of Preparation in the High School is to blame.

High School Teacher:

Good Heavens, what crudity, the boy's a fool!
The fault, of course, is in the Grammar School.

Grammar School Teacher:

From such stupidity may I be spared.
They send them up to me so unprepared.

Primary Teacher:

Kindergarten Blockhead!
That preparation. Worse than none at all.

Kindergarten Teacher:

Such lack of training never did I see.
What kind of woman must the Mother be!

The Mother:

Poor helpless child — He's not to blame.
His father's folks are just the same.

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*Author Unknown

operate a program. This problem can be minimized by spelling out the responsibilities of the evaluator and the staff at the very beginning of an evaluation study. A section dealing with the development of an evaluation contract is included in Chapter Four.

BASIC REFERENCE on Attitudes Toward Evaluation

A very insightful and highly readable treatment of issues relating to attitudes toward evaluation has been presented in the following article:

House, Ernest R. "The Conscience of Educational Evaluation," *Teachers College Record,* 1972, 73, 405-414.

By way of summary, this section has dealt with ***some*** of the problems that might be encountered in evaluating programs for the gifted and talented. Additional problems relating to particular approaches to evaluation will be discussed in the section of Chapter Two that deals with Evaluation Designs and Concepts. Although some of the problems are difficult to overcome, an awareness of their existence should help the evaluator to avoid falling into some of the traps that typically plague evaluation studies in this area of special education.

CHAPTER TWO: Evaluation Models and Concepts

I. An Overview of Basic Evaluation Models

This section contains a brief summary of five evaluation models. In most cases the models are extremely complex; and although the summaries are not intended to make you proficient in the use of any particular model, an awareness of the essential characteristics of each approach should enable you to decide whether or not you would like to explore further one or more of the models. To assist you in further exploration, a Basic Reference has been provided at the end of each section. These references represent the primary source of information about each model.

The first three models discussed below are general approaches to program evaluation that have been developed to assess various aspects of all types of educational programs. Although they were not developed specifically for evaluating programs for the gifted and talented, they can be used for this purpose because their organizational frameworks are broad enough to encompass a wide variety of educational activities. The last two models were developed specifically for programs for the gifted; but again, they are relatively broad in scope and therefore can be applied to many different types of special programs. Thus, the approaches described below should be viewed as multidimensional systems within which the details of evaluation planning can be placed.

A word of caution should, however, be offered before presenting the models. Many persons writing in the field of educational evaluation have recognized the models as mainly theoretical or heuristic (furthering the state of the art) contributions. As such, they provide us with several powerful ideas *about* evaluation, and they offer useful suggestions for planning evaluative studies. But at the same time, the models may be inoperable as cookbook formulas for carrying out a total evaluation. A would-be evaluator could easily drown in a sea of complexity if he selected a single model and slavishly tried to stick to it. While each author has made a valuable contribution to the overall thinking about program evaluation, it is probably true that no single model will serve all of the evaluation needs of a given program. Because of differences in program structures, the availability of resources, and the general orientation of evaluators and decision-making bodies, it is recommended that the prospective evaluator review all of the models and then select the most useful concepts from each according to his particular evaluation needs.

A. Stake's "Countenance" Model

Robert Stake characterizes the two basic acts of formal educational evaluation as description and judgment, both of which should be carried out to the fullest extent. There must be an effort to spell out antecedent conditions and classroom interactions, and to couple them with various program outcomes. Stake proposes that the evaluator consider three types of information, which he terms antecedent, transaction, and outcome data (See Figure 2.) Antecedent data are any data or conditions existing prior to the teaching and learning experience which may relate to the program outcomes.

The status of a student prior to his lesson, e.g., his aptitude, previous experience, interest, and willingness, is a complex antecedent. The programmed-instruction specialist calls some antecedents "entry behaviors." The state accrediting agency emphasizes the investment of community resources. All of these are examples of the antecedents which an evaluator will describe. (Stake, 1967)

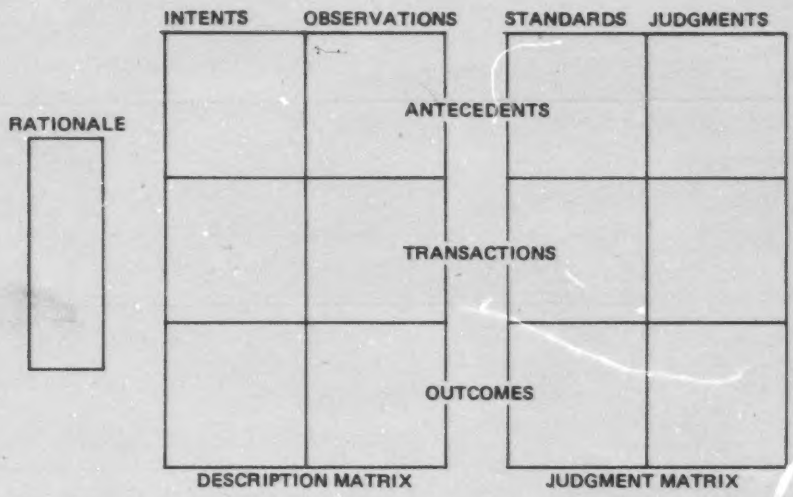


Figure 2

A Layout of Statements and Data to be Collected by the Evaluator of an Educational Program.

In addition to describing fully all the surrounding conditions and influences which may affect a program, the evaluator must also be a keen observer of transactions. Transactions are the countless encounters which comprise the process of education, the dynamic interactions between teacher and student, author and reader, parent and counselor, etc. Examples of transactions are "the presentation of a film, a class discussion, the working of a homework problem, an explanation on the margin of a term paper, and the administration of a test" (Stake, 1967). According to Stake, transactions are dynamic, whereas antecedents and outcomes are relatively static.

Finally, outcomes involve the impact of instruction and the consequences of the program, both immediate and long-range.

> Outcomes, as a body of information, would include measurements of the impact of instruction on teachers, administrators, counselors, and others. Here too would be data on wear and tear of equipment, effects of the learning environment, costs incurred. Outcomes to be considered in evaluation include not only those that are evident, or

> even existent, as learning sessions end; but include applications, transfer, and relearning effects which may not be available for measurement until long after. (Stake, 1967)

According to Stake, the evaluator is responsible for preparing a descriptive record of what educators intend to happen and of what observers actually find. In processing the descriptive data, Stake advises evaluators to look for the contingencies among the intended antecedents, transactions and outcomes, and to look for the congruence between that which was intended and that which is observed. Contingency is measured both logically and empirically. An attempt should be made to determine to what degree the intended antecedents, transactions and outcomes relate logically to one another. Empirical analysis requires that data must be collected upon the observed antecedents, transactions and outcomes. To determine congruence, one looks at the degree to which the intended are actually observed; that is, did what was intended actually happen? The evaluator should then describe the amount of congruence for the antecedents, transactions and outcomes.

The judgmental aspects of evaluation can be accomplished with respect to some absolute standards of excellence as reflected by personal judgments of experts in a given field, or a relative comparison with the characteristics of outcomes themselves. The evaluator determines which set of standards to heed and if each standard is met. Judging is assigning a weight of importance to each set of standards, whether it is absolute or relative. The judgment data are then used as input to the educational decision-making process by obtaining an overall rating of the program's merit.

As to the importance of relative or absolute judgments, other theorists have disagreed. Michael Scriven calls for direct comparisons between programs in order to find out which program is better for particular purposes. Lee Cronbach asks for fewer comparisons and more intense process studies with extensive description. It seems that Stake is calling for both complete description and judgment incorporating both the absolutes and relatives. One should not make a decision with regard to a single characteristic from a single program. The evaluator must set the priorities, determine which characteristics he will attend to, and decide what type of judgment data he will use. From this process a recommendation is made.

BASIC REFERENCE on Stake's Model

Stake's model is described in detail in the following article:

Stake, Robert E., "The Countenance of Educational Evaluation." *Teacher's College Record*, 1967, 68, 523-540.

B. Stufflebeam's CIPP Model

Daniel Stufflebeam defines evaluation as a decision-making process which involves three major steps: delineating the information to be collected, obtaining the information, and providing the information to decision makers. Such information, if valid, reliable, timely and credible, should enable decison makers to judge the relative value of alternatives with which they are faced.

Stufflebeam identifies four types of decisions which can be made in educational settings: planning, structuring, implementing, and recycling decisions. Planning decisions are made to determine objectives; structuring decisions are intended to design procedures; implementing decisions are made to utilize and refine procedures; and recycling decisions are for purposes of judging and reacting to attainments. Corresponding to the four types of educational decisions are four kinds of evaluation: context, input, process and product (See Figure 3). These are the key components of the CIPP evaluation model. They come at different times in the evaluation process, and also serve different decision-making functions.

Figure 3

Stufflebeam's Four Types of Evaluation

	CONTEXT EVALUATION	INPUT EVALUATION	PROCESS EVALUATION	PRODUCT EVALUATION
OBJECTIVE	To define the *operating context*, to identify and assess needs and *opportunities* in the context, and to diagnose *problems* underlying the *needs* and opportunities.	To identify and assess *system capabilities*, available input *strategies*, and designs for implementing the strategies.	To identify or predict, in process, *defects* in the procedural design or its implementation, to provide information for the preprogrammed decisions, and to maintain a record of *procedural events* and activities.	To relate outcome *information* to objectives and to context, input, and process information.
METHOD	By describing the context, by comparing actual and intended inputs and outputs, by comparing probable and possible system performance, and analyzing possible causes of discrepencies between actualities and intentions.	By describing and analyzing available human and material resources, solution strategies, and procedural designs for relevance, feasibility and economy in the course of action to be taken.	By monitoring the activity's potential procedural barriers and remaining alert to unanticipated ones, by obtaining specified information for programmed decisions, and describing the actual process.	By defining operationally and measuring criteria associated with the objectives, by comparing these measurements with predetermined standards or comparative bases, and by interpreting the outcomes in terms of recorded context, input and process information.
RELATION TO DECISION MAKING IN THE CHANGE	For deciding upon the *setting* to be served, the *goals* associated with meeting needs or using opportunities, and the *objectives* associated with solving problems, i.e., for *planning* needed changes.	For selecting *sources of support*, solution *strategies*, and procedural designs, i.e., for *structuring* change activities.	For *implementing* and *defining the program design and procedure*, i.e., for effecting process control.	For deciding to *continue, terminate, modify*, or *refocus* a change activity, and for linking the activity to other major phases of the change process, i.e., for recycling change activities.

Context Evaluation comes at the outset of the evaluation, and is primarily descriptive in nature. Its purpose is to identify the needs of the environment and to define the problems which are to be solved. This type of evaluation also involves delineating goals and objectives to be achieved by the program.

Input Evaluation, like Context, is primarily descriptive. Its purpose is to provide information necessary for selecting a strategy to meet program objectives and for developing a plan to implement the strategy. Primary concerns are procedures, staffing, and budgeting.

Once a course of action has been selected and implemented, ***Process Evaluation*** is initiated. Process Evaluation serves to provide information about detects in the program during the implementation stages. It also assists the project personnel in making decisions in a continual effort to improve the program. Data are collected continuously so that the evaluator can help in the interpretation of outcomes and also to document when change is needed.

Product Evaluation determines the effectiveness of the overall project when it has completed its full cycle. The purpose of Product Evaluation is to relate outcomes to objectives, context, input, and process. Decisions are made at this level to continue, terminate, modify or refocus the program. Stufflebeam believes that the use of experimental design at this stage is useful, and in many cases necessary.

Common to each stage of evaluation is a general structure for implementing the evaluation. The structure includes six major parts: focusing the evaluation, information collection, information organization, information analysis, information reporting, and the administration of the evaluation.

Much of what Stufflebeam says concerning evaluation, particularly Process and Product Evaluation, is included in other models and his emphasis on description in the early stages of evaluation is similar to Stake's concern with descriptive information. The unique feature of Stufflebeam's model is that he combines all of these ideas into a workable, though somewhat cumbersome model.

The positive aspect of this model is that it provides for evaluation at any stage in the life of a program. In emphasizing continous feedback from the evaluator to the decision maker, problems within a program can be identified and dealt with as they appear rather than at the conclusion of the program when it is too late for corrective action to be effective. While Stufflebeam's model can be praised for its comprehensiveness, real-life evaluations rarely are involved with planning and structuring decisions. The procedures he suggests are both complex and costly and would require a large staff to implement satisfactorily. And while providing useful information on decision makers is stressed at every level of evaluation, the steps or processes involved in making the decisions are not clearly defined.

BASIC REFERENCE on Stufflebeam's Model

Stufflebeam's major book on evaluation has been cited in an earlier Basic Reference. A paper which summarizes the main aspects of his model was presented at the:

Eleventh Annual Phi Delta Kappa Symposium on Educational Research, The Ohio State University, June 24, 1970.

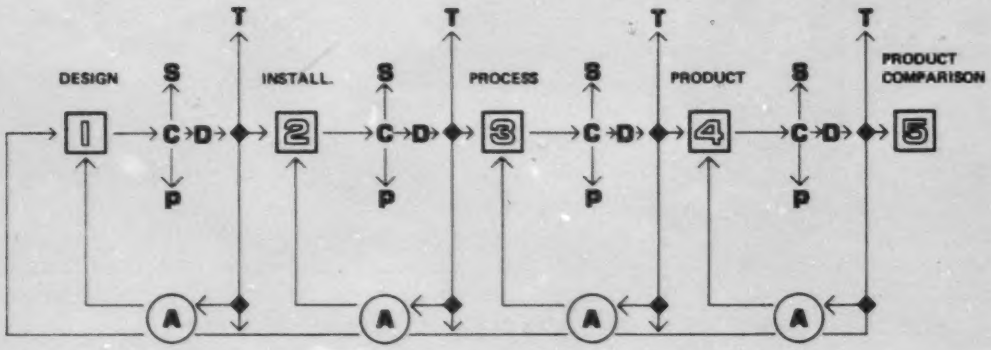
C. Provus' Discrepancy Model

Evaluation as defined by Malcom Provus encompasses three processes: agreement upon program standards, program assessment, and program improvement. The model is intended to facilitate design changes and data gathering essential to making judgments about the effectiveness of a program. The information collected may be used to determine whether to maintain or terminate a program at any stage of its development.

The model is intended to guide the evaluator in making comparisons between a program and its design on one hand and a series of agreed-upon program standards on the other. The evaluation staff collects information essential to program improvement and notes discrepancies between performance and standards. Every question involves a criterion (C), new information (I), and a decision (D). Evaluation provides the new information. Every aspect of the program is evaluated and comparisons are made of actual events with expected events at various stages of the program. Using a "feedback loop" approach, the evaluator provides discrepancy information that is useful to program managers in changing the program performance or the design standard so that the two are equalized.

To help explain the model, a diagram is presented depicting discrepancy evaluation (See Figure 4). The model consists of five stages, each providing a comparison of performance and standard; discrepancy information is then fed back for program adjustments. In Stage 1 (Design) a definition of program standards and structure is set by the program staff. (The content contained across all stages is the program structure: Inputs x Process = Outputs.) Information is collected on program specifications and a comparison is made between the program design and a set of design criteria which delineate the structural and theoretical base of the program as defined by an outside consultant. If a discrepancy exists, the information is fed back into the program so that a change can be made.

Figure 4
Diagram of Provus' Discrepancy Model



KEY
S - Standard
P - Product Performance
C - Compare
D - Discrepancy Information
A - Change in Program Performance or Standard
T - Terminate

Decision-Making Process
Discrepancy Information:
1. Go on to next stage
2. Recycle the stage after a change has been made
3. Recycle to the first stage after a change has been made
4. Terminate the project

In Stage 2 (Installation) the reality of the program is compared with the program design arrived at in Stage 1. Is the installation of the program the program design? If not, discrepancy information is used for change, either in Stage 2—performance change—or back to Stage 1 for a standard change.

In Stage 3 (Process) the relationship between process and interim products is established. The hypothesized activities which go on between inputs and the program outputs are compared with actual activities (interim products.) To judge whether the program is achieving its enabling objectives, discrepancy information based on the actual program performance of students is analyzed and any necessary corrective alternatives are examined and installed. Thus, the third stage contributes to the shaping of a successful program.

Stage 4 (Product) compares actual terminal products with hypothesized ones. The outcomes of the program are assessed and the program is tested for its generalizability. Finally, Stage 5 (Product Comparison) assists in choosing between programs by way of cost-benefit analysis to determine program efficiency.

The information collected at each stage and the accompanying criteria are as follows:

STAGES	INFORMATION COLLECTED	CRITERION
Design	Program Structure: I(P)• O	Design Criteria
Installation	Input-Process Performance	Program Design
Process	Process-Output Performance	Process-Product Relationships
Product	Input-Output Relationships	Terminal Objectives
Product Comparison	Input-Output Comparability	Cost Analysis

The model is a complex one with an intricate system of feedback loops. Provus' first four stages are concerned with single program evaluation and the development of that program. Stage 4 seems to be right out of a behavioral objectives reference manual—the evaluation of terminal objectives in reference to corresponding inputs. The whole idea of comparison with a standard reminds one of Stake's idea of Congruence and making judgments with absolute standards given by experts. Provus also seems to borrow from Scriven in that formative evaluation is used in the first four stages while summative evaluation is used in the fifth stage in the comparisons of similar programs.

BASIC REFERENCE on Provus' Model

Provus' book, ***Discrepancy Evaluation*** (McCutchan Publishing Co., Berkeley, California, (1972), is an extremely complicated treatment of his model, perhaps an "over-elaboration" on the basic idea. Therefore, I would suggest that you further pursue this model through the following reference:

Provus, Malcom. "Evaluation of Ongoing Programs in the Public School Systems." In R.W. Tyler (Ed.), ***Educational Evaluation: New Roles, New Means.*** The Sixty-Eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: NSSE, 1969.

D. Eash's Differential Evaluation Model

The model developed by Maurice J. Eash was designed specifically for the evaluation of new and innovative programs. Since programs for the gifted and talented are often characterized by flexibility and innovation, Eash feels that new programs need the freedom to evolve and clarify objectives as experience dictates. For this reason, he formulated a three stage evaluation methodology that parallels the stages of program maturation. Evaluation is carried out along a continuum, with each stage of a program being evaluated in terms of its particular activities and goals.

The continuum that Eash suggests is composed of three models: the initiatory model, the development model and the integrated model (See Figure 5). The major processes of the initiatory model consist of the planning of goals, specifications and operations. In the initiatory model there are few outcomes from the program to study. The evaluator analyzes the functions of various committees and makes recommendations for their future work. The developmental model is characterized by the actual construction and testing of a program in field operation. Implementaion of the developmental model takes place after program activities begin to stabilize. In the integrated model the program is clear on its goals, can predict with reasonable accuracy the outcomes of program activities, and can generate evaluation data for internal adjustments.

The dimensions Eash identifies for consideration in the evaluation process for each program model are: effort (how time is spent), effect (products and outcomes), and efficiency (the relationship of the efforts and resources to the effects achieved). The application of these factors will be specific to the nature of each model and will therefore seek different data. Figure 6 contains specific questions which the evaluator would raise in each model and for each dimension. Note that as the program moves from the initiatory to integrated model, increased emphasis is placed on product evaluation , i.e., effect.

Perhaps the most valuable feature of Eash's model is its allowance for modifications in program objectives over time. It makes sense—both in theory and practice—to differentiate evaluation procedures for the different stages in program development. It appears, though, that this plan for evaluation is less specific to gifted education than its title leads the reader to believe. Except for using gifted programs as the examples in the tables, this model is equally applicable for the evaluation of any new or innovative program—be it in special education or general education. Thus, rather than a specific method for the evaluation of gifted programs, Eash's contribution can be seen as one of more general relevance to evaluation methodology.

BASIC REFERENCE on Eash's Model

Eash's model has been described in its entirety in the following paper. Copies of the paper may be obtained from the ERIC Clearinghouse on the Handicapped and Gifted or by writing to Dr. Eash at the University of Illinois, Chicago Circle Campus, Chicago, Illinois.

Eash, Maurice J. "Issues in Evaluation and Accountability in Special Programs for Gifted and Talented Children." Unpublished Paper, 1971.

Figure 5

Three Levels of Program Models in Special Programs for Gifted and Talented

INITIATORY MODELS	DEVELOPMENTAL MODELS	INTEGRATED MODELS
Models are vague, intuitive in effects to be achieved. Objectives are stated as general outcomes and social goods to be achieved. There is much concern with theory. The debates on alternatives are theoretical rather than operational or data based. Justification of the program may be drawn from analogous programs in other contexts or be based on philosophical assumptions. Details for operationalizing the proposal are sketchy.	Models, where a mixture of objectives prevails; macro objectives give general guidance and some micro objectives are defined. Objectives still seem to be shifting and the model still takes different forms in individual staff descriptions. There is more concern with operational alternatives than a given alternative. While the program is operating there are many unknowns and frequently considerable improvisation.	Models have specific objectives to be achieved. There is monitoring of operation. Relationships of treatment (what is done educally) and effects (outcomes) are specified, and reproducibility is enhanced by elaborated descriptions of the model in operation. Logical relationships are explicated, and empirical data are being collected. The outcomes are being assessed and the range of effects are capable of being attributed to the program treatment.
Precis of a Program	**Precis of a Program**	**Precis of a Program**
A special program for gifted and talented children is drawn up. Decisions on the form it will take; special classes, enrichment, independent tutorials for the mix of these are still open. There is lack of agreement on definition of clients. Who is a gifted or talented student? How should he be educated? Should he be identified? At what grade? By whom? Will there be extra monies allocated to the education of these students? Will there be a need to establish a separate administrative unit for this program? What type of research will be conducted on a program? When will parents be involved? A committee has been set up to resolve some of these issues. Administrative responsibilities and a sum of money for planning have been allocated. The committee has been meeting for one year, a set of minutes, a list of consultants and a description of the field trips to visit programs for gifted children exists.	One special program for gifted and talented children has been underway two years. Fifty children are involved. In some cases teachers nominate students for the program, in others they are selected on basis of test scores. The first year students spend four hours per week in the program, the second year this has been extended to six. The program has focused on scientific interests though there is concern about including more humanities. One teacher made arrangements for 25 of the students to see the Old Vic perform at the local college. Some data, mostly of a descriptive nature has been collected on the students, their achievements and the program. Teachers do not have fixed style for instruction, the instruction reflects personal teaching style.	A program for gifted and talented students has been in operation for five years. Open-ended instruction is featured with teachers and students cooperatively planning the curriculum for three months at a time. The Director of Research for the school district monitors the program through teachers' records, student interviews and regular classroom visitations. Program outcomes are investigated through their effect on student's achievement and interest. A contrast group of students, not in a special program, in a neighboring school district with a similar student body is supplying comparable data on special programs' influence on the regular program. At the end of the five years a summer workshop composed of teachers and pupils in the program in conjunction with administrators and university consultants will draw up the program description for the next three years. Decisions will be rendered on the program organization, the selection and retention of students and the research to be conducted.

Figure 6

Differential Evaluation in Three Program Models

	INITATORY MODEL	DEVELOPMENTAL MODEL	INTEGRATED MODEL
EFFORT	1. What have been the main directions of the committee's efforts?	1. What have been the main thrusts of the program's efforts?	1. What are the major goals the program is trying to attain? Who is involved in the effort?
	2. What has been the level of participation among the committee members?	2. What objectives have received the major attention?	2. What percentage of staff and student time is committed to the program? Total time?
	3. Has the committee broadened its constituency and recognized the socio-political aspects of its efforts?	3. Who has been involved in the program, to what extent, voluntary or mandated, volunteer or paid?	3. What data are available that permit building a history of the effort and projecting a scenario for future thrusts?
	4. How much time has been spent on certain phases of the program?	4. Where has the support for the program emanated; what has been the total developmental costs—financial and psychic?	4. What areas of effort are perceived as worth while by the different role participants?
		5. How much total time has been spent? What parts of the program are consuming the bulk of time?	
EFFECT	1. What is the level of knowledge manifested in the committee on special programs for the gifted and talented?	1. What data on functioning of the program have been collected or can be collected?	1. What are the programs short-range effects on students in the program, students not in the program, teachers, parents and administrators? Are data available to study both process and product effects?
	2. Are the committee members conversant with issues, trends and programs?	2. What have the effects been on program students, other students, teachers, parents and administrators?	2. Is any provision made for studying long range effects?
	3. What is the present stage of the plans, are they near operationalizing?	3. Have the data on effects been used to modify or shape the program, explore alternatives?	3. Can the desired effects stated in the original goals be attributed to the program?
	4. What are the main impediments to formulating a developmental model program?	4. Can the effects on students be attributable to the program?	4. Have there been any unanticipated effects?
		5. Have there been any unanticipated effects?	
EFFICIENCY	1. Does the committee have an organized plan for carrying out its work, with deadlines and completion schedules for phases of activities?	1. Are there records or other evidence that program problems are being systematically encountered and resolved?	1. Are problems systematically studied? Are the participants conversant with the decision making process? Has it been scrutinized?
	2. Is the committee clear on its responsibility to the Board of Education and superintendent?	2. How does the cost on this program compare with costs on other programs in the district and in other districts?	2. What is the cost of this program compared with other programs in the district and similar programs?
	3. Given the amount of time and money invested has a useful product emerged? How far are they from an operating program?	3. What goals seem within attainment? What goals have not been attained?	3. How do these costs project out for the future now that developmental costs are largely met?
		4. Given the program's experience, what will be the approximate cost of an integrated program model?	4. What has been the cost of attaining certain effects, what trade-offs were made in the interest of cost?

E. Renzulli and Ward's "DESDEG" Model

The Diagnostic and Evaluative Scales for Differential Education for the Gifted (DESDEG) were developed as a guide for both self-study and for assessment by an external evaluation team. The model represents an attempt to bridge the gap between theory and practice in the field of evaluation as it applies to programs for the gifted. Although DESDEG was designed mainly for purposes of program evaluation, the authors suggest that it can also be used as a guide for program planning and development.

DESDEG consists of five interrelated components. Part I, the ***Manual,*** provides a theoretical rationale underlying this particular approach to evaluation and an explanation of the steps involved in carrying out a comprehensive evaluative study. Part II, the ***Evaluative Scales,*** consists of a set of fifteen "Program Requirements" (PRs) that were judged by a group of experts to be important characteristics of comprehensive programs for the gifted. The PRs are organized around five "Key Features" which represent general areas of consideration in program development and implementation (See Figure 7). The PRs may be viewed as guides that provide structure and focus to the

Figure 7

Overview of the DESDEG Model

Key Feature A: Philosophy and Objectives

Program Requirement 1:	Existence and Adequacy of a Document
Program Requirement 2:	Application of the Document

Key Feature B: Student Identification and Placement

Program Requirement 3:	Validity of Conception and Adequacy of Procedures
Program Requirement 4:	Appropriateness of Relationship Between Capacity and Curriculum

Key Feature C: The Curriculum

Program Requirement 5:	Relevance of Conception
Program Requirement 6:	Comprehensiveness
Program Requirement 7:	Articulation
Program Requirement 8:	Adequacy of Instructional Facilities

Key Feature D: The Teacher

Program Requirement 9:	Selection
Program Requirement 10:	Training

Key Feature E: Program Organization and Operation

Program Requirement 11:	General Staff Orientation
Program Requirement 12:	Administrative Responsibility and Leadership
Program Requirement 13:	Functional Adequacy of the Organization
Program Requirement 14:	Financial Allocation
Program Requirement 15:	Provision for Evaluation

observations, the inquiries and the interpretations of the evaluator, after he has analyzed and checked the data available in the ***Basic Information Forms*** (see description below). The specificity of each of these requirements and their deliberately ordered parallelism and comprehensiveness makes the diagnostic potential of the instrument especially valuable in suggesting changes and making recommendations relating to particular program practices.

The program requirements may be thought of as statements of certain principles about education for the gifted that are found in the literature, and which depict ideally-conceived educational practices for exceptionally able students. They do not pertain exclusively to any given pattern of program organization, but rather attempt to embrace excellent practices whatever the nature of the administrative structure of the program; practices that ***can*** and ***should*** be inaugurated in view of the behavioral potential of superior students.

Each program requirement serves as a focal idea around which a set of five Scale Standards has been developed. Thus, the Scale Standards depict practices or provisions of varying merit that are derivatives of the respective Program Requirements.

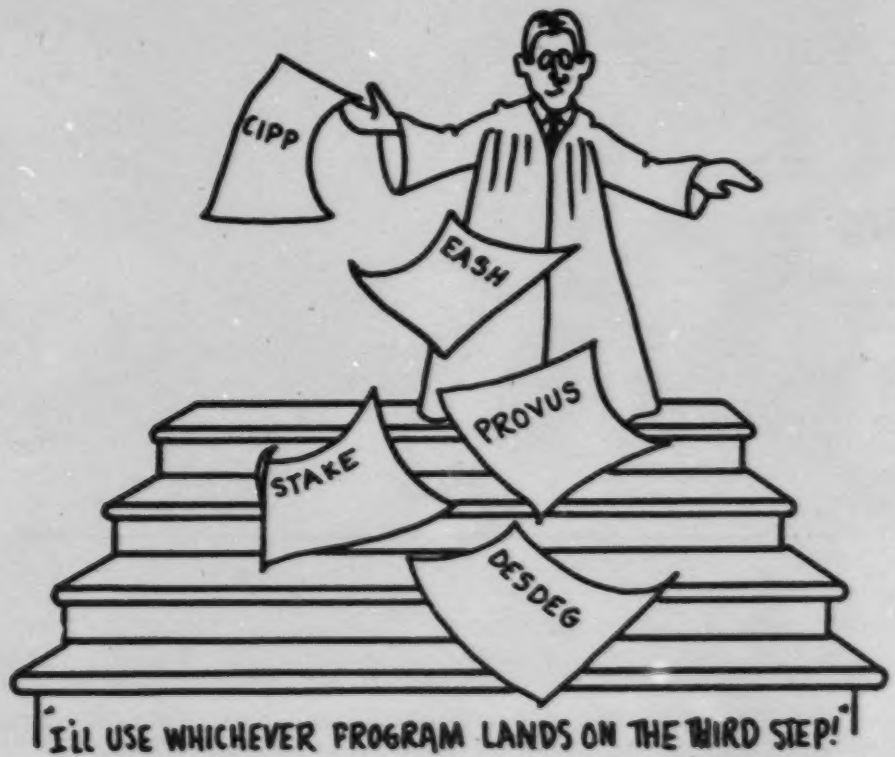
Part III of DESDEG consists of ***The Basic Information Forms.*** These forms are intended to provide the evaluator with a comprehensive inventory of factual information about all aspects of a program that might have some bearing on the final judgments and recommendations which he must make. It should be emphasized that the information sought through this component of the DESDEG plan is purely descriptive; therefore, an attempt has been made to structure the ***Basic Information Forms*** in a way that allows for a relatively objective collection of data. The forms have been designed to be completed by persons ***within*** the program rather than by external evaluators; and for this reason, the information has been sought in a manner that requires a minimum amount of interpretation on the part of persons providing the data. The solicitation of information from knowledgeable program participants is an economical means for gathering data; and yet, the non-judgmental nature of the information requested helps to avoid the unconscious bias that well-intentioned participants often bring to an evaluative situation. Thus, a distinction is maintained between the descriptive and judgmental functions; description being the responsibility of persons within the program, while the interpretation of descriptive information leading to judgments remains the responsibility of the professional evaluator. The ***Basic Information Forms*** are organized and keyed according to their relationship to each of the five key features.

Part IV of DESDEG is called ***The Evaluator's Workbook.*** This section is intended to assist the evaluator in processing information derived from the ***Basic Information Forms*** and from observations that are made while visiting the program. Thus, it may be thought of as a practical aid for translating descriptive data and observed events into judgments. The ***Workbook*** follows the same pattern of organization as the two previous components (i.e., Key Features and Program Requirements), and consists mainly of suggestions to the evaluator about important factors to be considered in arriving at final judgments for each of the programs' requirements. Illustrations of transformations from descriptive data to scale standards are provided, modes of inquiry are

suggested, and examples are given of extenuating circumstances that may lead to special consideration in assigning or withholding the designation of scale values in certain areas of the program. Space is provided for recording the results of interviews and observations, for summarizing information derived from various sources, and for listing questions and points that are in need of further clarification.

The final section of DESDEG is ***The Summary Report.*** This report is again organized in a pattern consistent with the preceding components so as to allow the evaluative findings and recommendations to be made in relation to the respective key features and program requirements. All numerical ratings from the Scale Standards are transferred to statistical and graphic summary forms.

Although the quantitative aspects of the ***Summary Report*** will no doubt be of interest to school personnel, the most important function of this component will be served by the narrative summary and recommendations that the evaluator is asked to make for each of the Program Requirements. This section should contain (a) a brief statement telling why the rating on a given Program Requirement was earned, and (b) specific suggestions for action that is needed to bring about an improvement in the Program Requirement. Needless to say, such suggestions must be based on local circumstances and resources; and should be guided by the total conglomerate of information which the evaluator has processed. Provisions also are made in the narrative sections of the Summary Report for pointing out the strongest features of the program being evaluated.



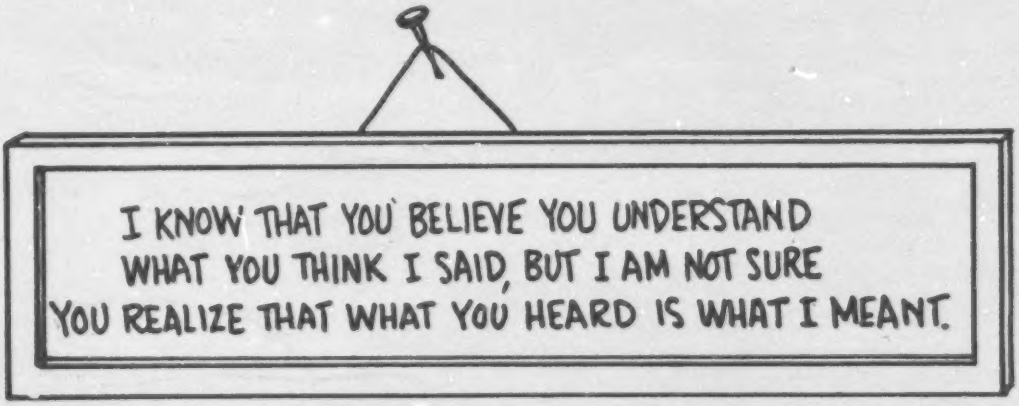
BASIC REFERENCE on the DESDEG Model

The entire DESDEG plan for program evaluation, including each of the five components described above can be found in:

Renzulli, Joseph S. and Ward, Virgil S. ***Diagnostic and Evaluative Scales for Differential Education for the Gifted.*** Storrs: University of Connecticut, 1969.

II. Basic Concepts in Program Evaluation

As the literature on evaluation grows in size and complexity, a whole new language of evaluation is emerging that describes the concepts which have helped to create this area of specialization. Although many of the concepts have been adopted or adapted from other areas such as psychometrics, research design, and instructional technology, a small number of basic concepts have become almost essential to understanding the language of the evaluator. Almost all professional evaluators are familiar with these concepts, and although they may disagree on some of the subtle ramifications of their meanings, the basic concepts provide a useful vehicle for facilitating communication in the design and implementation of evaluative studies.


I KNOW THAT YOU BELIEVE YOU UNDERSTAND
WHAT YOU THINK I SAID, BUT I AM NOT SURE
YOU REALIZE THAT WHAT YOU HEARD IS WHAT I MEANT.

The purpose of this section is to review some of the basic concepts that help to define the field of program evaluation. The would-be evaluator and consultant who is rendering technical assistance will no doubt want to explore these concepts in much greater depth, and for this reason some carefully selected Basic References have been included. The section should provide the person who will seek the services of a professional evaluator with enough information to communicate meaningfully with those persons who will carry out an evaluation study. Space limitations and the general purpose of this ***Guidebook*** preclude an exhaustive treatment of the basic concepts; and therefore, this section will attempt to focus upon general problems and issues related to each concept and the ways in which these problems and issues have special relevance to the task of evaluating programs for the gifted.

The first two concepts discussed below, Formative and Summative Evaluations, may be thought of as evaluation ***designs.*** They represent the predetermined plans that guide the ways in which an evaluation will be carried out and the role that evaluation will fulfill in the overall operation of a project. It should be emphasized that an evaluation need not be either formative ***or*** summative, but rather can be a combination of both designs.

The other three concepts discussed in this section, Product, Process, and Presage Evaluations, should be thought of as types of evaluative data — that is, the kind of information that an evaluator focuses upon in organizing and conducting an evaluative study. (This may be somewhat of an oversimplification of Product, Process, and Presage; but thinking of these three concepts as types of data will help to eliminate some of the confusion that invariably arises when discussing evaluation designs.) Decisions regarding which types of data an evaluator will seek are, of course, also based on the role that evaluation is expected to play; and thus, we begin to see relationships forming between Formative and Summative Evaluations on one hand and Product, Process, and Presage on the other. The sections that follow will attempt to point out these relationships, but suffice it to say at this time that most field evaluations take into account several combinations of the concepts discussed below.

A. Formative Evaluation

A great deal has been written on formative evaluation and although much of the writing is an overelaboration on an essentially simple concept, this concept is emerging as one of the most powerful ideas in present-day thinking about evaluations. Michael Scriven, the person who originated the concept, defines formative evaluation as "simply outcome evaluation at an intermediate stage in the development of [whatever it is that you are evaluating]" (Scriven, 1967, p. 51). The role of formative evaluation, according to Scriven, "is to discover deficiencies and successes in the intermediate versions" of educational programs and activities (p. 51). We note here that the emphasis is on ***when*** the data are gathered ***(intermediate stages*** as opposed to end-of-program data) rather than on the types of data that are being used. The major purpose of formative evaluation is to provide continuous in-process feedback so that appropriate modifications and revisions can be made in a program as the program develops and matures. One of the primary advantages of formative evaluation is that the data are gathered in close proximity to specific components of a program, and thus it has greater potential for pinpointing the successes and failures of particular program activities.

All types of data (Product, Process, Presage) can be used in formative evaluation but it is important to keep a few basic rules in mind. First, a systematic feedback mechanism must be developed so that information reaches decision makers in time to institute changes that are deemed necessary. Secondly, decision makers at each level of decision-making responsibility (see Chapter One, Part II-A) must make a sincere commitment to change.* Flexibility is a key word

*I recently was the evaluator of a supposedly innovative program in nursing education. The program director seemed committed to the formative evaluation concept, but the first time negative findings were reported she perceived the information as being a threat to her "grand design" for a nursing curriculum. It became clear that the director viewed the role of evaluation as one of program verification rather than program improvement. (Needless to say, we parted company at this point!)

in formative evaluation and unless program developers are willing to make both major and minor modifications, there is little value in providing them with in-process feedback. The third and perhaps most important rule to follow in formative evaluation is that information should be collected on identifiable program activities that we can do something about. Formative evaluation data are useless unless they tell us where to make changes and the changes are within the realm of possibility. This is an important point to keep in mind when selecting instruments to measure student growth. A standardized achievement test may tell us if students have made gains (or failed to make gains) in a particular area such as language arts, but it will not fulfill the role of formative evaluation if we cannot relate the scores to certain types of instructional materials, teaching strategies, classroom climates, or an interaction among various combinations of these variables. This is especially true when we are dealing with the effectiveness of a particular body of curricular materials. Fortunately, many of the "big" curriculum projects (***Man: A Course of Study, Science – A Process Approach,*** etc.) have been carefully evaluated in their developmental stages and the evaluator should not be expected to fulfill the role of the research and development person. Comprehensive curriculum evaluation requires a tremendous commitment in terms of personnel and money; and for this reason, it may very well be a luxury that can only be carried out in an ideal fashion by well-funded research and development projects. If, however, the evaluator is expected to engage in formative curriculum evaluation, he or she can benefit from some of the strategies that have grown out of the experimental curriculum projects. These projects have generally relied on carefully developed mastery tests which bear direct relationships to specific areas of the curriculum. The Basic Reference which follows is an excellent source for persons who need to develop skills in the construction of such tests. The recommended strategies are based on a detailed analysis of content areas ***and*** process objectives which are classified according to the ***Taxonomies of Educational Objectives.*** Instructions are given for drawing up tables of specifications and constructing formative evaluation tests.

BASIC REFERENCE on Curriculum Evaluation

This large volume (more than 900 pages) is a handbook in the truest sense of the word and is not intended to be read from cover to cover. Evaluation techniques are presented in a how-to-do-it fashion for each of the major subject fields and levels of education.

Bloom, Benjamin S., J. Thomas Hastings, and George F. Madaus. ***Handbook of Formative and Summative Evaluation of Student Learning.***
New York: McGraw-Hill Book Company, 1971.

At this point it would probably be wise to reemphasize the fact that curriculum evaluation based on mastery testing represents only one dimension of total program evaluation. Persons who are engaged in formative evaluation will no doubt want to provide continuous feedback in other areas where corrective action can be taken such as reactions of parents toward the program, the effectiveness of in-service training, etc. In the next chapter we will discuss methods for identifying those aspects of a program which should be evaluated, and at that point the evaluator should decide which aspects are best approached through the formative evaluation design.

"WE COULD CERTAINLY USE A LITTLE IN-PROCESS FEEDBACK"

B. Summative Evaluation

Summative evaluation differs from formative evaluation mainly in the role that it fulfills. Whereas formative evaluation is directed toward program revision and improvement through continuous feedback, summative evaluation is more concerned with ***overall*** program effectiveness. Thus, summative information is more likely to be used in making decisions about program adoption or continuation. While the results of summative evaluation are no doubt of interest to persons who develop and operate programs, they are primarily gathered for those persons who will decide the fate of programs. This is an important point to keep in mind. Formative evaluation fulfills a very noble educational role and has emerged as the "fair-haired boy" of evaluation designs; but summative evaluation plays an equally important political role. (I use the word, "political" here in its ancient and honorable context, which refers to policy making.) Thus, boards of education or funding agencies may be more interested in summative information.

Although summative data might be gathered throughout the course of a program, the "pure" summative evaluator avoids giving any feedback until the end of the program because he wants to see how the program works in its natural (unaltered) form. In this respect, summative evaluation resembles the classic approach to experimental research design; i.e., holding the independent variable (program) constant in order to discover what changes it produces. The main difference between summative evaluation and experimental research design is that the researcher is usually comparing alternative treatments under highly controlled conditions. These conditions almost always include the random assignment of students to experimental treatment groups and to control groups. Although most evaluators would like to respect as many of the mandates of good research as possible, this is seldom feasible in field evaluations. As has been indicated earlier, programs for the gifted are often characterized by a great deal of variety and individualization, and it would be difficult to do high quality research without very substantial resources. The summative evaluator can, however, use the same instruments as the formative evaluator in documenting the overall effects of a program. But in this case there is a greater need to show growth over relatively long periods of time, and for this reason it may be necessary to gather data at the beginning and end of a program.

Up to this point we have been discussing formative and summative evaluation as if they are two separate and distinct entities. In actual practice, the evaluator will most often use a combination of approaches and some of his instruments can serve the dual purpose of providing in-process feedback for practitioners ***and*** documenting student growth for decision-making bodies. The best guide for determining what types of data will be most useful for practitioners and decision makers is to survey each group at the outset of an evaluation study. The techniques for doing this are discussed in the next chapter under the heading of Front-End Analysis.

C. Product or "Pay-off" Evaluation

Since educational programs are intended to produce certain changes in the attributes of students, product evaluation can be thought of as the assessment of observable and measurable student outcomes that result from a particular educational endeavor. Assuming that there is some consensus about the desirability of intended outcomes, these outcomes then become the "pure pay-off" of an educational program. The only important evaluative data, according to the hard-nosed pay-off evaluator, are documented indications of change in student performance, change that would not have taken place had the student not been enrolled in a particular course or taken part in a certain educational activity. Scriven (1967) has pointed out the many problems that are associated with pay-off evaluation, not the least of which is the difficulty of determining ***how*** we will judge evaluative data once they have been gathered. According to Scriven:

> The evaluator will have to relate the students' performance to ***some*** abstract criterion, whether it is his [the evaluator's] conception of an adequate professional comprehension, or what he thinks it is reasonable to expect [a student] to understand. . .
> [Scriven, 1967, pp. 60-61]

In other words, merely obtaining objective measures or descriptions of student growth does not enable the evaluator to make ***qualitative*** judgments about what has been learned (e.g., How ***good*** is an increase of 10 points in the mean score for a particular group?). And while Scriven's concern has been expressed mainly in terms of comprehension, we can readily see that the problem of establishing abstract criteria for judging educational products will be compounded as we focus our attention on higher level processes such as creativity and problem solving abilities. In the final analysis, some form of human judgment must be brought to bear on objective findings; and thus, one of the major responsibilities of the product evaluator is to determine what types of information are most necessary for facilitating the judgment process.

The most obvious and popular type of product evaluation data has been scores on standardized and teacher-made tests. Some of the problems involved in using tests to assess the quality of programs for the gifted and talented have been discussed in Chapter One, Part III. Scriven (1967) further elaborates on these ideas by pointing out that "the performance of students on the final tests, as upon the tests at intermediate stages, must be analyzed in order to determine the exact location of shortcomings of comprehension, shortages of essential facts, lack of practice in basic skills, etc." (Scriven, 1967, p. 61). In other words, test scores, in and of themselves, tell us nothing about cause and effect relationships and the only way that we will be able to pinpoint such relationships is through a thorough analysis of test items as they relate to course content.

In recent years the development of a different concept in testing, referred to as ***criterion-referenced measurement,*** shows promise of making more effective use of tests in program evaluation. Whereas traditional norm-referenced tests yield only scores that show an individual's relative standing in comparison to a norm group, the newer criterion-referenced tests are designed to show a student's accomplishments in particular areas in relation to a level of performance that he or she will be expected to achieve. For example, rather than saying that a student is "above average" or "scoring at the 75th percentile" (a normative statement), criterion-referenced tests offer statements such as: "The student correctly spelled 18 our of 20 words from the basic fourth grade vocabulary list in the Second Unit of instruction." This statement tells us in a relatively precise fashion which skills a student has mastered. From statements such as these we can begin to make inferences about how effectively particular segments of instruction are carried out and where specific modifications should be introduced into a program. Thus, criterion-referenced testing can help us to accomplish the basic task of evaluation which is program modification through systematic feedback. At the same time, criterion-referenced tests can help us to serve individual students better by determining exactly where remedial instruction may be necessary and/or whether or not a student is ready to go on to the next step in a learning hierarchy.

As far as product evaluation is concerned, it sounds as though criterion-referenced testing may be the answer to our prayers; but unfortunately, such is not the case. Although this type of measurement is a ***potentially*** valuable means for assessing educational products and identifying specific strengths and weaknesses in instructional programs, a very important caution

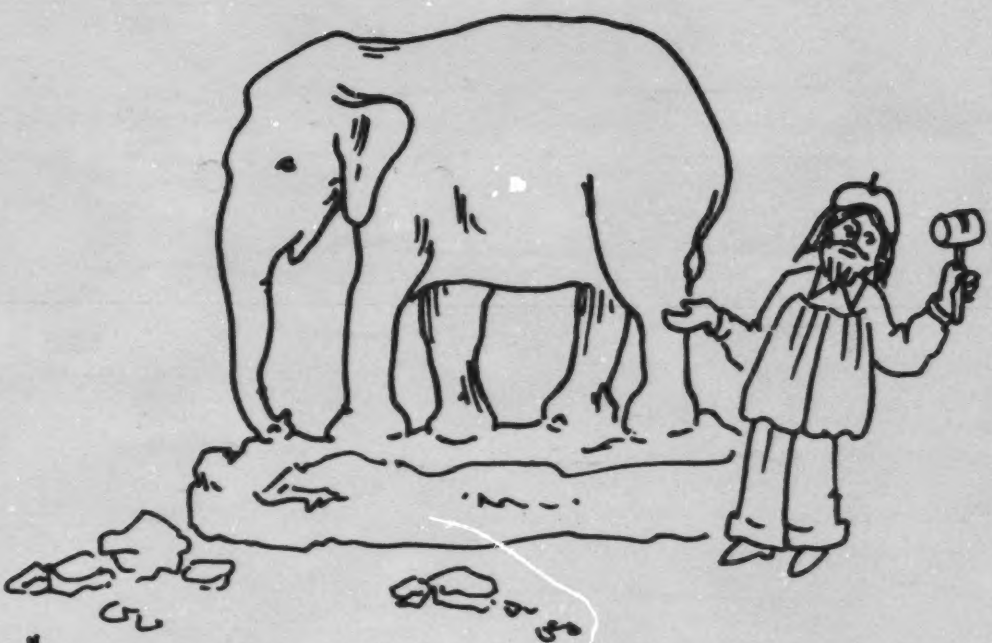
must be pointed out. Up to this point in time, the criterion-referenced testing movement has been closely tied to the behavioral objectives movement; and as such, there has been a tendency to concentrate mainly on basic skills and limited types of learning activities. We have already discussed the high-level-objectives issue, but we should reemphasize in this context (i.e., product evaluation) that unless criterion-referenced tests truly assess the types of learning that are appropriate for gifted and talented students, their use may have the same limiting effects on programs as the rigid application of norm-referenced tests. The usefulness of the criterion-referenced measurement concept represents a significant advance in evaluation methodology, but we must recognize that it is the responsibility of field evaluators to ***apply*** this concept appropriately. This can only be accomplished through the careful selection and/or development of instruments that validly assess performance at the higher levels of learning.

BASIC REFERENCE on Criterion-Referenced Measurement

Articles on criterion-referenced testing are popping up everywhere but many of them deal only with guidelines for developing tests of this type. I have selected the following article for our Basic Reference in this area because it covers the topic comprehensively and seems to give the greatest amount of direction toward applying this concept to higher levels of learning. The article is at times very technical, but it deals with many of the complexities of the issue with which the evaluator should be aware.

Millman, Jason. Chapter 6: "Criterion-Referenced Measurement." In W. James Popham (Ed.), ***Evaluation in Education: Current Applications.*** Berkeley, California: McCutchan Publishing Corporation, 1974, pp. 311-397.

Up to this point we have discussed product evaluation mainly in terms of information yielded by tests. Although this is typically the case, there are other alternatives for gathering and judging product information. Ratings of student products (or performance) by experts is one way in which the quality of creative work can be assessed. For example, in a program for gifted and talented students in Warwick, Rhode Island, a group of artists and writers were asked to rate students' work that was completed at various stages throughout the program. A copy of the rating form which was developed for this purpose is included in Appendix B.



"ALL I DID WAS CHIP AWAY ANYTHING THAT DIDN'T LOOK LIKE AN ELEPHANT."

If specific student attitudes are listed as objectives of a program, the measurement of such attitudes can also be considered product data. Numerous instruments for the measurement of all types of attitudes have been collected in a variety of sourcebooks which are listed in the bibliography of this *Guidebook*. Sample instruments for the measurement of both student and parent attitudes are included in the appendices.

Another type of product data falls under the classification of "frequency counts." This type of data is typically gathered through the use of logs, checklists or an analysis of school records. Once again, frequency counts qualify as product data if they reflect the accomplishment of an important program objective. Thus, for example, if one of the stated objectives of a particular program is: "To increase by 50 percent the number of science books that students select for independent reading," we can evaluate this objective by some relatively simple record keeping. We should keep in mind, however, that this is a very different kind of product from the qualitative assessment of student performance.

Although product data (especially in the form of test scores) are usually used in summative evaluation studies, they can also be used in formative evaluation. As has been indicated earlier, the purpose (role) for which data are gathered and the frequency with which information is fed back into the program are the main factors which distinguish between formative and summative evaluations. It is important to reemphasize, however, that when product data are used for formative purposes, it must show cause/effect relationships and give specific direction to corrective actions that are designed to bring about program improvement.

It might be worthwhile to end this section by pointing out that there is still a fair amount of confusion among evaluators about the similarities and differences between good product evaluation and research. The techniques and instruments used by the evaluator and researcher overlap considerably and the difference can only be expressed by defining the purpose of a particular study. Theoretically, the researcher's efforts should be directed toward discovering cause/effect relationships and predicting to what degree these relationships can be generalized to other (similar) populations and replicated under similar circumstances. The evaluator, on the other hand, has the responsibility of finding out how well a particular program operates, given certain conditions. In reality, however, the evaluator is implicitly making predictions when he recommends continuation (or discontinuation) of a program or particular practices.

D. Process Evaluation

In view of the many problems that product evaluation presents in assessing for the gifted and talented, there is clearly a need to seek additional kinds of data which show promise of determining the effectiveness of particular program activities. Process evaluation is concerned with assessing those aspects of student and teacher behavior which are considered to be worthwhile in their own right. These behaviors or processes are the teaching strategies and learning activities that are believed to be necessary in order to bring about desired educational products. In other words, process evaluation is concerned with "what-goes-on" in a learning situation rather than "what-comes-out-of-it."

Although there is some disagreement among educators about what constitutes a process, most evaluators agree that assessing the actual dynamics of a learning activity can provide very valuable insights about the strengths and weaknesses of certain educational practices. The assessment of educational processes is almost always used in formative evaluation studies. Process data are usually gathered to give immediate feedback to teachers so that they can make desired modifications in their instructional practices. Process data can be used in summative evaluation reports but a great deal of caution must be exercised when it is used for summative purposes. Teachers may be genuinely interested in "taking-a-look-at-themselves" so that they can improve their teaching techniques, but they may feel threatened if they think that process data will be used by others to make judgments about their teaching ability. Whenever process data are used in summative reports, it is a good idea to omit the names of individual teachers and to emphasize ***how*** the process data were used to improve instruction. Such an approach will remove the emphasis from evaluating teachers, but at the same time make decision makers aware that the program people (administrators, teachers, internal evaluator) are taking systematic steps to evaluate themselves and to improve the program.

BASIC REFERENCE on Observation Instruments

The following book provides descriptive information about 99 systems for observing, recording, and analyzing teacher and learner behavior. The systems are described in terms of: the number and type of subjects observed, the data collection method, the type of behavior upon which the instrument focuses, the type of coding units used, the personnel needed, and the reported uses of the system. This book is a must for the reference library of the process evaluator.

Simon, Anita and E. Gil Boyer. ***Mirrors for Behavior III. An Anthology of Observation Instruments.*** Wyncote, Pa.: Communication Materials Center, 1974.

The use of process data for program evaluation purposes can best be discussed by focusing on a couple of specific approaches to systematic observation techniques and classroom climate analysis. It goes without saying, of course, that any system or instrument will reflect the theoretical orientation and educational values of the developer; and therefore, the field evaluator will want to make certain that instrument(s) which he selects are in agreement with the philosophy and objectives of the program being evaluated.

The most highly developed and widely used systems for gathering observational data is the Flanders Interaction Analysis System (See Basic Reference below). This system focuses on the distinction between direct and indirect teacher influence in the classroom, the underlying assumption being that the first step in modifying one's teaching behaviors is to more fully understand how the teacher is influencing the learning situation. Implicit in the target behaviors of this system (i.e., direct and indirect influence) is Flanders' belief that the teacher should develop the capability to make his or her own behaviors appropriate to the requirements of particular learning situations.

Flanders' categories for analyzing verbal interaction are shown in Figure 8. A trained observer (or teacher listening to a tape recording of her own classroom) writes down a category number every three seconds throughout the course of a given activity. These numbers are then recorded on a data matrix and various statistical formulas are followed that lead to the discovery of certain patterns of teacher behavior. Although Flanders points out that only the individual teacher can make final decisions about what behavior is good or bad, desirable or undesirable, most of the research which has been carried out on this system seems to suggest that indirect teacher influence leads to the type of learning conditions which are frequently emphasized in programs for the gifted and talented. Indirect teaching generally has been found to result in higher student spontaneity, initiative, and contributions to problem solving situations.

Figure 8

Summary of Categories for the Flanders Interaction Analysis System*

TEACHER TALK	INDIRECT INFLUENCE	1. * ***ACCEPTS FEELING:*** accepts and clarifies the feeling tone of the students in a nonthreatening manner. Feelings may be positive or negative. Predicting or recalling feelings is included.
		2. * ***PRAISES OR ENCOURAGES:*** praises or encourages student action or behavior. Jokes that release tension, but not at the expense of another individual; nodding head, or saying "um hm?" or "go on" are included.
		3. * ***ACCEPTS OR USES IDEAS OF STUDENTS:*** clarifying, building, or developing ideas suggested by a student. As teacher brings more of his own ideas into play, shift to Category 5.
		4. * ***ASKS QUESTIONS:*** asking a question about content or procedure with the intent that a student answer.
	DIRECT INFLUENCE	5. * ***LECTURING:*** giving facts or opinions about content or procedures; expressing his own ideas, asking rhetorical questions.
		6. * ***GIVING DIRECTIONS:*** Directions, commands, or orders with which a student is expected to comply.
		7. * ***CRITICIZING OR JUSTIFYING AUTHORITY:*** statements intended to change student behavior from nonacceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference.
STUDENT TALK		8. * ***STUDENT TALK–RESPONSE:*** talk by students in response to teacher. Teacher initiates the contact or solicits student statement.
		9. * ***STUDENT TALK–INITIATION:*** talk by students, which they initiate. If "calling on" student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category.
		10. * ***SILENCE OR CONFUSION:*** pauses, short periods of silence, and periods of confusion in which communication cannot be understood by the observer.

* There is ***NO*** scale implied by these numbers. Each number is classificatory; it designates a particular kind of communication event. To write these numbers down during observation is to enumerate—not to judge a position on a scale.

* Amidon and Flanders, 1971, p. 14

Higher achievement, less dependence, and greater self-direction were usually found in the classrooms of teachers who were classified as highly indirect. Thus, we see in the Flanders System a technique that has great relevance to the task of evaluating the processes which are frequently encouraged in gifted education. The system is especially useful in gathering data at lower grade levels because students are not required to complete questionnaires or rating scales.

BASIC REFERENCE on the Flanders System

A great deal has been written on the Flanders System, but the following reference is the best "how-to-do-it" guide. Careful study of this little manual and a small amount of practice will provide the training you need to gather and analyze interaction data.

Amidon, E.J. and N. A. Flanders. ***The Role of the Teacher in the Classroom: A Manual for Understanding and Improving Teacher Classroom Behavior.*** Minneapolis: Association for Productive Teaching (5408 Chicago Avenue South, Minneapolis, Minn. 55417), 1971.

The problems associated with process evaluation and especially with observational techniques are well-known by most educators. Observer bias, lack of inter-judge reliability, a limited sampling of teacher behavior, and the amount of time and money involved have frequently been cited as reasons for approaching process studies with a great deal of caution. An observer in the classroom may result in a highly artificial situation. If the observer drops in unannounced, the teacher might feel threatened and react in an atypical manner. On the other hand, if the teacher knows exactly when the evaluator is coming (a condition that has been written into some union contracts), the evaluator may very well end up observing a "showcase" lesson. The best way to avoid these pitfalls is to inform the staff that observation will be taking place over a given segment of time and they can expect someone to be visiting their classroom periodically. This approach lessens the shock of unexpected visitation and increases the chances of observing a classroom under natural conditions. Of course, the best approach is to make teachers sensitive to the role of formative evaluation, and thereby gain their cooperation and perhaps even enthusiasm for obtaining feedback that will help to improve the learning conditions in their classroom.

A second approach to the process evaluation offers some intriguing possibilities for overcoming some of the problems discussed above. Rather than having one or two observers in the classroom for a very limited period of time, the questionnaire or rating scale approach is based on observations made by numerous observers who are in the classroom all of the time. These observers are, of course, the students themselves.

The ***Class Activities Questionnaire*** (CAQ) was developed by Joe M. Steele as part of the instrumentation that was used to evaluate the Illinois Gifted Program. Both cognitive and affective dimensions of the instructional climate are measured through a thirty-item instrument that is completed by ***both*** students and teachers. Steele (1969) describes the dimensions of the instrument as follows:

1 & 2) ***Lower Thought Processes*** and ***Higher Thought Processes*** assess the dimensions of cognitive emphasis. This part of the CAQ is based on Bloom's Taxonomy. Each higher level of thinking is believed to involve the use of all the lower levels. The difference between lower and higher levels is one of complexity. There can be a range of difficulty of activities at each level of thinking.

3) The ***Classroom Focus*** dimension assesses whether focus is on the teacher as information-giver with students having a passive role, or on the students being given an active role with the teacher being the facilitator.

4) The ***Classroom Climate*** dimension deals with the effective domain. It assesses factors such as how relaxed and open the class is.

5) The ***Student Opinions*** dimension represents mini-interviews with each student on the best things and changes to make in the class.

An overview of the CAQ is presented in Figure 9. One of the innovative features of this instrument is the way in which it is scored. Student responses are considered to be the ***Actual*** emphasis that is placed on each of the factors and these are summarized on the printout (See Figure 10) with the letter "A." Teachers fill out two copies of the questionnaire. On one copy they record the ***Intended*** or ***Ideal*** amount of emphasis that they would like to place on each factor (signified by the letter "I"). The second copy records their ***Predicted*** (P) emphasis. In analyzing their results teachers can determine how successful they were in achieving their ideal behavior and how accurately they estimated the way students viewed the class. Discrepancies can be used as the basis for improving instruction through self-analysis and/or inservice training activities.

The fact that the CAQ is based, in part, on the ***Taxonomies of Educational Objectives*** makes it particularly relevant to process evaluation in gifted education. As was indicated in the early pages of this ***Guidebook***, I firmly believe that a system such as the ***Taxonomies*** helps us to focus our attention on those higher cognitive and affective processes which should be given major emphasis in programs for the gifted and talented.

Figure 9

STRUCTURE OF THE CLASS ACTIVITIES QUESTIONNAIRE (CAQ)*

The CAQ assesses five major ***Dimensions*** of instructional climate, as noted in the left-hand column. Each of these dimensions is composed of a number of ***Factors*** which in turn are usually represented by several items in the questionnaire. (The Cognitive Dimensions are based on Bloom's Taxonomy.)

DIMENSIONS	FACTORS	BRIEF DESCRIPTIONS (Items not shown)
LOWER THOUGHT PROCESSES	1. Memory:	Activities calling for recall or recognition of information presented.
	2. Translation:	Activities calling for paraphrasing or expressing information in a different symbolic form.
	3. Interpretation:	Activities calling for recognition of relationships and seeing implications of information.
HIGHER THOUGHT PROCESSES	4. Application:	Activities calling for selection of appropriate methods and performance of operations required by problem situations.
	5. Analysis:	Activities calling for recognition of the structure of material, including the conditions that affect the way it fits together.
	6. Synthesis:	Activities calling for the generation of new ideas and solutions.
	7. Evaluation:	Activities calling for development and application of a set of standards for judging worth.
CLASSROOM FOCUS	8. Discussions:	Student opportunity for and involvement in class discussion.
	9. Test/Grade Stress:	High pressure to produce teacher-selected answers for a grade.
	10. Lecture:	Teacher role is information-giver with a passive, listening role for students.
CLASSROOM CLIMATE	11. Enthusiasm:	Student excitement and involvement in class activities.
	12. Independence:	Tolerance for an encouragement of student initiative.
	13. Divergence:	Tolerance for and encouragement of many solutions to problems.
	14. Humor:	Allowance for joking and laughter in the classroom.
	15. Ideas Valued:	Ideas are seen as more important than grades.
	16. Ideas Enjoyed:	Subject matter is seen as interesting and enjoyable.
	17. Teacher Talk:	Proportion of class time consumed by teacher talk.
	18. Homework:	Weekly amount of outside preparation for class.
STUDENT OPINIONS	19. Qualities:	Students' view of the best things about the class.
	20. Deficiencies:	Students' view of things that need changing about the class.

* Steele, 1969

Figure 10

Sample Computer Printout of *Class Activities Questionnaire* Summary

CITY: SEYMOUR JR. HIGH TEACHER: SUBJECT: SCIENCE PERIOD: 0 GRADE LEVEL: 5

CAQ: TEACHER'S INTENDED EMPHASIS, PREDICTED RESPONSE, AND SUMMARY OF STUDENT RESPONSES PAGE 4 OF 5

	LEVELS OF THINKING		TEACHER'S INTENDED (I) AND PREDICTED (P) EMPHASIS COMPARED TO ACTUAL (A) EMPHASIS SEEN BY STUDENTS			
			INCONSISTENT	NONE	SOME	MUCH
LOWER LEVEL THOUGHT PROCESSES	MEMORY	1	A	I P		
	TRANSLATION	2	A I P			
	INTERPRETATION	3			A P	I
HIGHER LEVEL THOUGHT PROCESSES	APPLICATION	4			A P	I
	ANALYSIS	5			A I P	
	SYNTHESIS	6				A I P
	EVALUATION	7	A		P	I
	CLASSROOM CONDITIONS					
	DISCUSSION OPPORTUNITY	8			A I P	
	TEST/GRADE STRESS	9		A I P		
	LECTURE	10		A I P		
	ENTHUSIASM	11				A I P
	INDEPENDENCE	12				A I P
	DIVERGENCE	13				A I P
	HUMOR	14				A I P
	IDEAS VALUED OVER GRADES	15			A	I P
	ENJOYMENT OF IDEAS	16				A I P

		STUDENT-ESTIMATE	TEACHER-ESTIMATE	TEACHER-IDEAL
PERCENTAGE OF TEACHER TALK	17	25	25	25
AVERAGE PREPARATION TIME PER WEEK				
AVERAGE PREPARATION TIME PER WEEK	18	0 HR	0.5HR	1.5HR

BASIC REFERENCE on the Class Activities Questionnaire

I have administered the CAQ in a number of evaluations of gifted programs and have been thoroughly impressed with its usefulness. The teachers eagerly looked forward to receiving their results and used them as a guide in the selection of consultants for inservice training. The cost is reasonable (about $10.00 per classroom) and includes computer scoring and printouts.

Steele, Joe M. ***Dimensions of the Class Activities Questionnaire.*** Urbana, Illinois: Center for Instructional Research and Curriculum Evaluation, University of Illinois, 1969.

Information about the instrument and scoring service can be obtained by writing to:

Dr. Robert Rosemier
520 College View Court
Northern Illinois University
De Kalb, Illinois 60115

BASIC REFERENCE on other Classroom Climate Questionnaires

Descriptions of six additional classroom climate questionnaires can be found in the following reference. This article also includes an excellent summary of research on relating classroom climate to student outcomes.

Nielsen, H. Dean, and Diana H. Kirk. "Classroom Climates." In H. J. Walberg (Ed.), ***Evaluating Educational Performance.*** Berkeley, Calif.: McCutchan Publishing Co., 1974.

E. Presage or Intrinsic Evaluation

Some evaluators would argue that due to deficiencies in instruments that measure products (payoff), especially higher level cognitive and affective products, it is necessary to look for other sources of evaluative data. Presage or intrinsic evaluation focuses on factors which are assumed to have a significant impact on outcomes or products. Thus, intrinsic factors may be thought of as the purposefully planned activities that are designed to bring about changes in student performance. According to Scriven (1967), persons who advocate this approach in curriculum evaluation are likely to be concerned with certain "qualities of a curriculum such as elegance, modernity, structure, integrity, readiness considerations, etc., which can best be judged by looking at the materials directly" (p. 54). Renzulli and Ward (1969) have used the presage approach more broadly in the development of DESDEG by pointing out several dimensions of a program that can be studied through the assessment of information that has an assumed relationship to program quality.

The major problem with presage or intrinsic evaluation is the logical jump that must be made from intrinsic factors to program outcomes. Although outstanding teachers, low teacher-pupil ratios, and carefully developed learning activities would seem to result in generally better products, the evaluator is frequently left with the haunting feeling that some product and process data are necessary in order to indicate that pay-off is really taking place. Indeed, very few contemporary evaluation theorists would advocate a wholly presage approach, and yet, this concept is of value in considering the assessment of programs for the gifted and talented because the outcome objectives of such programs are oftentimes not easily measured by existing instruments. The presage approach also offers a useful model of evaluating non-product dimensions of a program. For example, in the DESDEG model Renzulli and Ward have developed several forms that help to provide an analytic look at identification systems. The comprehensiveness of screening and placement procedures, the variety of criteria used in identification, and the proportion of students selected at each grade level are revealed through the use of these forms. The forms force a breakdown of the information and thus enable the evaluator to see the identification system more clearly and to ask more meaningful questions. Hopefully, a clearer picture of all aspects of the identification process will help the evaluator come to more accurate judgments.

The presage or intrinsic approach is probably more in keeping with Stake's (1967) belief that careful and accurate description is a necessary prerequisite to the judgmental process. As has been indicated earlier, information (data) does not in and of itself render opinions; and in the final analysis, it is people who must make judgments. The presage approach can facilitate the judgment process by helping to present information in its clearest and most useful format. In the chapter that follows a combination of models and approaches will be advocated; however, we will draw heavily on the presage concept as it relates to presenting descriptive information.

F. Other Models and Concepts

Before ending this section we should again reemphazise that no single model or approach is sufficient for solving all of the problems that are likely to occur in a wide and frequently complicated variety of evaluation situations. Each approach has certain strengths and limitations and it is up to the field evaluator to size up his or her particular problem and to apply a combination of the most appropriate methods.

We also should not leave this section without pointing out that additional models and methods can be found in ever-expanding literature on evaluation. A recent volume in the ***American Educational Research Association Monograph Series on Curriculum Evaluation*** (1974) presents four reports on educational evaluation that deal with Anthropological, Economic, Narrative, and Portral approaches. Worthen and Sanders (1973) and Borich (1974) have included several models in their very valuable reference books on evaluation theory, and Michael Scriven (several years ahead of his time, as usual) has recently developed an entirely new concept called goal-free evaluation. But the models and concepts which we have included in this section represent "the basics," and as such, they should provide the necessary background for additional reading on evaluation theory and practice.

CHAPTER THREE: Designing an Evaluation for Your Program

This chapter represents a synthesis and application of much of the information that has been discussed in the first two chapters. An attempt has been made to provide specific suggestions for planning and carrying out an evaluation study, but it is important to keep in mind that no single model or formula can be prescribed for the many different programs and circumstances under which evaluative studies are conducted. The theories, models, and concepts have, of course, greatly influenced the direction that this chapter will take, but the realities encountered through actual experience in evaluating programs for the gifted have provided the major guidance for the suggestions.

Part I will deal with a political reality that should be considered at the start of any evaluation study. The most sophisticated evaluation design and the most careful procedures will not serve the purposes of evaluation if key decision makers do not get the information that ***they*** require. For this reason we will begin by analyzing the decision-making process and offering some suggestions for clarifying the evaluator's relationship with decision makers.

Part II is concerned with specific procedures that can be followed in planning and carrying out an evaluation. Although this section might be described as an evaluation model, it may be thought of as a management system into which the ideas of many of the model builders can be incorporated. In developing this section, an effort has been made to avoid dragging one through the basic content of a tests and measurements course; but it is difficult to deal with the central topic of instrumentation without getting into a little bit of the measurement jargon. Throughout this section we have attempted to point out the technical competencies in measurement and statistics about which the evaluator should be generally knowledgeable about; but at the same time, we have frequently suggested that the services of specialists in these areas be sought.

I. Examining the Decision-Making Process

Why is the evaluation being conducted?

Who will receive the evaluation information and what will they do with it?

What kind of information do key decision makers want?

Who should carry out the evaluation?

Before we can begin to plan a truly useful evaluation study it is important to consider the above questions. They can be used as guides in analyzing two important dimensions of the decision making process. The first dimension is concerned with certain "agreements" that should be reached between the evaluator and decision-making individuals or groups. The second dimension deals with identifying areas where decisions might be made as a result of an evaluation study. We will use two hypothetical examples to help illustrate these two points.

"HEADS 'GO', TAILS 'NO'."

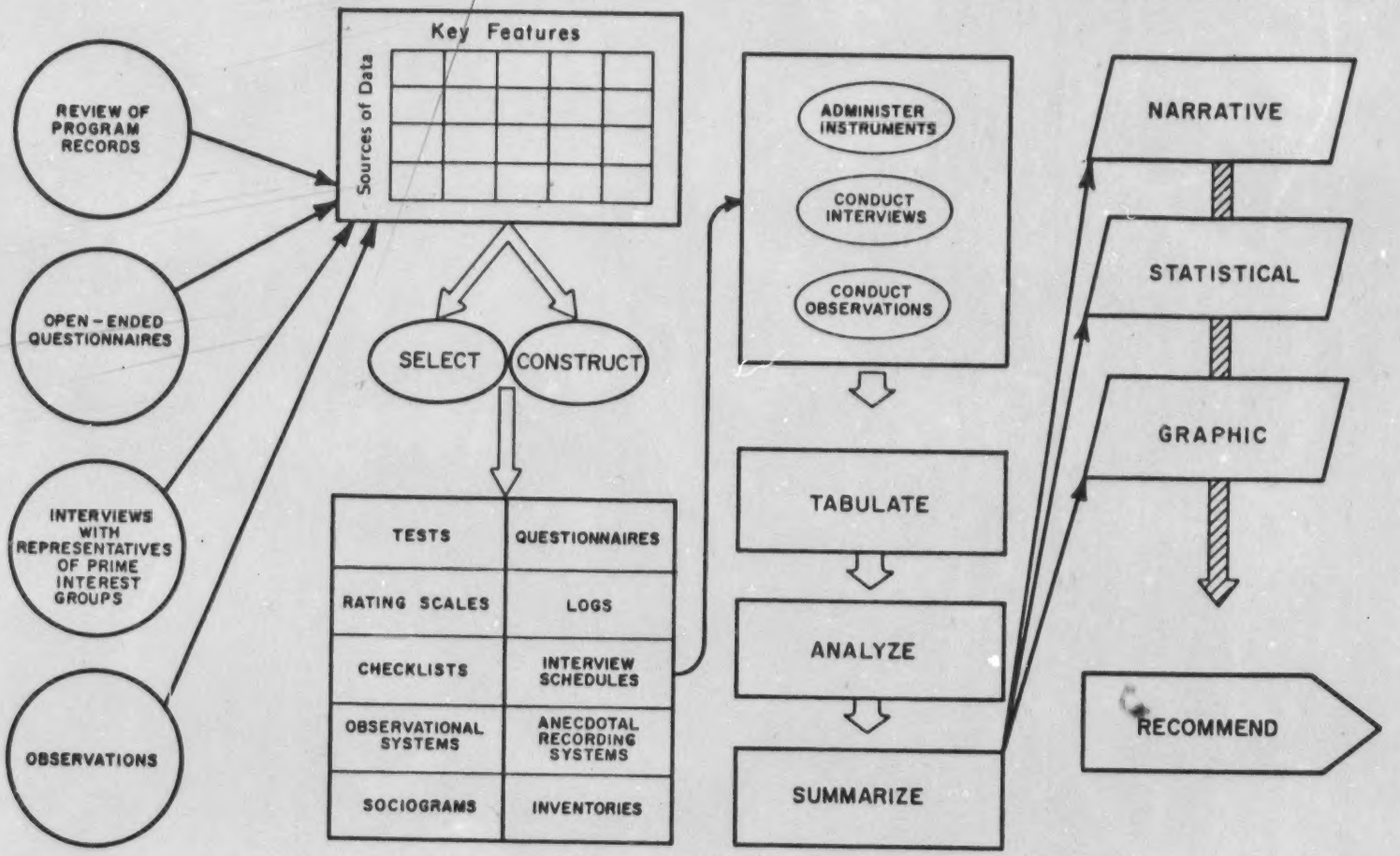
A. A Board of Education Wants to Make a Go/No-Go Decision

Suppose that a Board of Education wants to evaluate its gifted program in order to determine whether or not it should be continued. The evaluation will result in a simple decision—continue (Go) or discontinue (No-Go) the program. Let us further suppose that the board is "test-score oriented" and, by and large, they are mainly interested in pretest/post-test comparisions of student achievement. Finally, let us assume that when test results are presented the board is likely to ask the "So what?" question. That is, the changes in test scores for gifted students will not, in and of themselves, satisfy the board unless they have some basis for making comparisons. This situation quite obviously requires a research design or highly controlled summative evaluation study with major emphasis on the comparative analysis of product or outcome data.

Since one of the most difficult tasks in this evaluation will be selecting appropriate measuring instruments and analyzing the result, it would be wise to choose an evaluator with a strong background in tests and measurements and research methodology. In view of the board's requirements, the evaluator must be knowledgeable about these topics so that he can present ***his*** requirements for carrying out a study that will be satisfactory to them. He may, for example, decide that he must randomly assign students to the gifted program and control groups; or that he must administer a great number of tests to both students in the program and the general school population. The important issue here is that decision makers should be aware of the consequences of their requirements so far as the needs of the evaluator are concerned. And this awareness should cause them to grant necessary permissions and make available appropriate resources.

Figure 12

OVERVIEW OF THE KEY FEATURES EVALUATION SYSTEM



Front-End Analysis (Input)

Synthesis of Input Information
- A. DEVELOPMENT OF A DATA GATHERING MATRIX
- B. INSTRUMENT DEVELOPMENT

Data Collection And Analysis

File Evaluation Reports:
- A. INTERIM
- B. BRIEFS
- C. FINAL

A. Step I: Front-End Analysis

The purpose of Front-End Analysis is to help the evaluator identify "Key Features" in programs for the gifted and talented. Key Features may be thought of as major factors or variables that contribute to the effectiveness of a program. Before an evaluator can begin to select instruments and gather data it is important to determine which factors influence the program's operation and contribute most to an understanding of it. It is also important to learn what types of information are of major concern to various "Prime Interest Groups." Prime Interest Groups consist of people who have a direct or indirect interest in the program being evaluated. Quite obviously, these groups will amost always include students, parents, teachers, administrators, and school board members. But, depending on the nature of the program, Prime Interest Groups may also include persons who are involved in the program indirectly. If, for example, a program draws heavily on the services of community businesses, cultural facilities, or agencies, the persons responsible for arranging and/or providing these services should be considered Prime Interest Groups. It is quite likely that many of the Prime Interest Groups will share some of the same concerns, but each group will also have some relatively unique interests. Thus, for example, several groups may be interested in student achievement but school board members may want information on cost effectiveness. Administrators may be interested in learning how the gifted program affects the attitudes of non-program teachers and students; and teachers may want to know if certain curricular materials or teaching techniques are favorably received by students. One of the early jobs of the evaluator is to ferret out the major concerns of each of these groups.

Careful work in the Front-End Analysis step will help the evaluator focus his efforts on the most relevant concerns of each group. The information obtained at this step gives direction to the difficult task of instrument selection and development and also serves as a guide in developing a time-line and preparing evaluation reports. Please keep in mind that Front-End Analysis is essentially an "input" or information gathering activity, and therefore the evaluator should avoid making judgments at this stage of his work. The main objective is to become thoroughly familiar with the program so that meaningful Key Features can be identified.

The four procedures used in Front-End Analysis are described below. Although the procedures can be carried out simultaneously, experience has shown that more meaningful information can be obtained from the Interview and Visitation techniques if they follow the first two procedures.

1. ***Review of Documents.*** The first step in Front-End Analysis is a careful and comprehensive review of all written material relating to the program. These documents might include:

   a. Statements of Philosophy and Goals
   b. Guidelines and Instruments Used in Student Identification
   c. Curriculum Guides and Materials
   d. Descriptions of the Student Population
   e. Lists of Behavioral Objectives and Learning Activities
   f. Descriptions of the Staff and Criteria for Their Selection

g. Project Proposals, Budgets, Time and Effort Reports

h. Descriptions of Facilities, Equipment, and Support Services

i. State Department of Education Regulations Governing the Program

j. Previous Evaluation Reports

k. Descriptions of Inservice Training Activities

l. Newsletters, Newspaper Releases, and Public Relations Brochures

m. Samples of Students' Work

n. Methods for Reporting Student Progress

o. Diagrams or Charts that depict the Administrative Hierarchy or Chain of Command

p. Superintendent's Annual Reports

As the evaluator reviews program documents he should make careful notes about areas where he would like to raise further questions, obtain clarifications, or note discrepancies between the content of two or more pieces of information. Older and more highly developed programs will no doubt have a larger number and variety of documents, and thus, it may be necessary to review them selectively. When documents are relatively limited, as is frequently the case with new programs the evaluator will have to depend more heavily on the methods suggested below for input information.

2. ***Open-Ended Input Questionnaires.*** A representative sample of each Prime Interest Group should be asked to complete an open-ended questionnaire such as the one presented in Figure 13. The major feature of an input questionnaire is its ***lack*** of structure and the freedom it allows persons to comment about anything they would like. A good way to discover the important values of respondents is simply ask what they would look at if they were evaluating the program. Whenever possible, questionnaires should be kept anonoymous and the directions should make it clear that no attempt will be made to identify persons completing questionnaires.

Input questionnaires should be analyzed separately for each Prime Interest Group so that you can compare and contrast the concerns of the respective groups. A good way to analyze this type of questionnaire is to develop a color-code system and simply underline similar key words or phrases with a certain color pen. For example, if statement dealing with "snobbishness" or "elitism" occur I might underline them in red. After all the questionnaires have been analyzed I can spread them out quickly and get a feel for the most frequently cited areas of concern. Sampling is a doubly important concern when distributing and analyzing questionnaires. First, you must have a fair porportion (40 to 60%) of returns from each group to insure a representative sample of the thinking of that group. Second, comments relating to particular areas of concern should occur with enough frequency to suggest that it is not a solitary attitude or grievance. (The extent and depth of concerns can be probed in the next procedure.)

Figure 13

Sample Input Questionnaire

Hamden-New Haven Cooperative Education Center

INDEPENDENT STUDY PROGRAM

The coordinators of the Independent Study Program (ISP) have asked me to conduct an evaluation that will help them to determine the effectiveness of the program. The first step in the evaluational model that I will be using is to identify the major areas of concern of students, faculty members, and other persons connected with the program. These areas of concern might relate to course content, scheduling, facilities, attitudes of regular students toward ISP students, etc.

I would like to obtain your assistance in this initial process by asking you to ***list the major questions that you would like to have answered in an evaluation of the ISP.*** Please list your questions or areas of concern in the space below and use the back of this page if you need more space. Please ***do not sign your name*** to this questionnaire. No attempt will be made to identify the person completing this form.

Thank you for your cooperation.

Joseph S. Renzulli
University of Connecticut
Box U-64
Storrs, Conn. 06268

Please check the space below that best describes your relationship with the program:

___ ISP Student
___ ISP Faculty
___ Parent
___ Guidance Counselor
___ Administrator
___ Other (Specify) _____
___ Department Head
___ Advisory Board Member

3. ***Interviews With Representatives of Prime Interest Groups.*** Interviews should begin with the director and persons who were involved in the planning phase of the program. These persons will more than likely help you to gain an understanding of the way in which the program was ***ideally*** conceived, whereas interviews with teachers and students will probably deal more closely with the way in which the program is actually operating. The evaluator's first face-to-face contact with people is extremely important, and it is at this point that he must gain their trust and cooperation. As was indicated in Chapter One, the evaluator can quickly be perceived as the "enemy" or the representative of "the oppressor" unless favorable rapport is developed. Rapport and trust can

be developed more easily when the evaluator assumes the role of an ombudsman, or person who represents "the people" in making their interests and concerns known to administrators and policy makers. In Front-End Analysis interviews, especially in a formative approach, the evaluator should essentially be asking: "How can I help you?" "What information will help to make the program better for you?" "What are the things that are bothering you?" It is important, of course, to assure the persons being interviewed that complete anonymity will be maintained. An informal and relaxed setting is absoutely necessary, and small groups or rap sessions are less threatening to students than being called in for a formal interview. It almost takes a sixth sense to determine if a tape recorder or too much note-taking are posing a threat to persons being interviewed. It is always a good idea to explain beforehand that tapes or notes are solely for the purpose of helping you remember what has been said and that no one but you will have access to the tapes or notes.

In conducting interviews the evaluator should use information obtained from reviewing documents and open-ended questionnaires as cues or take off points to deeper levels of understanding. "Are the objectives realistic?" "Is flexibility and innovation ***really*** encouraged?" "Is there too much bureaucratic red tape?" "Are students ***really*** free to select whatever topics they would like?" The interviews should also help the evaluator determine if statements on the open-ended questionnaires are relatively limited or widespread concerns. "Do you think that a lot of people feel that the program fosters elitism?" "Do you think that a lot of kids in the program are really goofing off?" "Does the principal always give teachers a hard time when they ask permission for students to leave the building?" When strong feelings are expressed with regard to a particular issue you might ask, "Do you think that this would be a good question to ask all (students, teachers, parents, etc.) on a written questionnaire?" Asking the right questions in input interviews is difficult because you are not evaluating but rather attempting to identify areas that will help to structure subsequent evaluative activities. Do not be concerned if you are not getting a great many facts and figures—these will come later when you develop more structured data-gathering instruments. Remember, Front-End Analysis is for the ***evaluator's*** orientation rather than for making judgments.

"WOULD YOU CHARACTERIZE YOUR POSITION AS (MILDLY), (MODERATELY), OR (SEVERELY) TENSION PRODUCING?"

4. ***Observation.*** A fourth procedure in Front-End Analysis is simply observing the program in action and trying to "get inside" it by viewing it from the perspective of students and teachers. Understanding the day-to-day operation of the program will help to clarify and verify some of the concerns identified through previous input procedures. This type of "reality orientation" will give you a much better perspective of the-way-it-is rather than the ways in which it has been described and discussed.

B. Step II: Synthesis of Input Information and Instrument Development

At the conclusion of Front-End Analysis the evaluator should be able to list the ***major*** concerns of each Prime Interest Group. These concerns should be classified and organized according to similarities among the groups and the list which evolves should make up the Key Features upon which the evaluation will focus. (Note: We will come back to the Prime Interest Groups in a later section.) As has been indicated earlier, differences among programs and the various concerns of decision makers will undoubtedly result in different Key Features from program to program; however, certain areas will probably be identified in most evaluation situations. Student performance, for example, is an almost universal concern of Prime Interest Groups, but other Key Features have been identified in research studies (See the following BASIC REFERENCE) and therefore each program should be analyzed individually to determine Key Features of ***local*** importance.

BASIC REFERENCE on Identifying Key Features

A systematic procedure for identifying Key Features in programs for the gifted was the subject of the following study. It was this study that provided the areas around which DESDEG is organized (See Figure 7).

Renzulli, Joseph S. "Identifying Key Features in Programs for the Gifted." ***Exceptional Children,*** 1968, 35, 217-221.

Figure 14

Matrix of Key Features and Sources of Data

Key Features

Sources of Data	Student Growth	Levels of Thinking and Classroom Conditions	Attitudes Toward Program	Identification Procedures	Etc.
Students	Pre- and Post-Tests of Creativity, Critical Thinking, etc.	*Class Activities Questionnaire* Interviews	Questionnaires Interviews (Random Sample)		
Program Teachers	Evaluation of Student Growth Forms (A Structured Anecdotal Report)*	*Class Activities Questionnaire* Logs	Interviews	Time and Effort Reports Follow-up Questionnaire	
Parents			Questionnaires Interviews (Random Sample)	Follow-up Questionnaire	
Student Selection Committee (Including Records)				Time and Effort Reports Rating Scale (on Usefulness of Information) Interviews Analysis of Records	
Non-Program Teachers	Rating Scale		Questionnaires Interviews (Random Sample)	Time and Effort Reports Follow-up Questionnaire	
Consultants	Student Product Rating Form				
Building Principals and Coordinators		Questionnaires	Interviews "Problems" Log	Time and Effort Reports "Problems" Log	
Secretaries				Time and Effort Reports	

*See Figure 17

After the Key Features have been identified they should be listed along one dimension of a chart such as the one presented in Figure 14. The evaluator must now ask himself two questions:

1. What types of instruments and/or techniques will provide information relevant to each Key Feature?
2. From whom can this information be obtained?

The answers to these questions provide the information necessary for completing the other dimension of the chart (Sources of Data) and filling in the actual content which consists of the instruments that will be used to gather data related to each Key Feature. Following the completion of this matrix the evaluator should then prepare a Data Collection and Analysis Guide for ***each*** Key Feature. An example of such a guide is presented in Figure 15. This particular example is from an evaluation study that attempted to compare various approaches to the identification process. As can be seen in Figure 15, the first column provides a breakdown of specific activities that are involved in Key Feature I: Student Identification Procedures. Subsequent columns list the sources of data, how the data will be gathered, the data analysis procedure for each instrument, and the dates when information will be obtained. Thus, the Key Features matrix (Figure 14) provides us with an overview of the entire evaluation while the Data Collection and Analysis Guides (Figure 15) provide more detailed direction for gathering and processing information relevant to each Key Feature. As specific instruments are identified, general terms such as "Questionnaire" and "Test" can be replaced by the names of actual instruments.

Figure 15

DATA COLLECTION AND ANALYSIS GUIDE

Key Feature I: Student Identification Procedures

Activity Being Evaluated	Source(s) of Data	Data Collection Method	Data Analysis	When Gathered
1. Cost of identification for case study approach and traditional approach.	Personnel involved in identification Teachers Secretaries Psychologists Administrators	Time and effort reports Costs of instruments	Summary of hours multiplied by hourly rates of personnel	Oct.-Dec., 1974
2. Problems involved in each identification approach	Personnel Parents	Questionnaires Interviews Logs	Frequencies Percents Summaries of comments	Oct.-Dec., 1974 Follow-up in April, 1975
3. Percentage of students nominated or preselected by tests	Administrator of identification process in each district	Analysis of records	Percentages	Conclusion of preselection (Nov. 30, 1974)
4. Efficiency and effectiveness* of each selection approach	Administrators Personnel involved in selection Teachers Psychologist	Time and effort reports Analysis of records Questionnaires Interviews Tests	Summary of hours multiplied by hourly rates of personnel Frequencies Percents Summaries of comments	Conclusion of selection process Follow-up in January, 1975 and April, 1975

*_Efficiency_ will be measured by comparing the number of gifted who are identified by each method with the total number of students who are screened. _Effectiveness_ will be measured by comparing the students identified as gifted by each method with the "true" number of gifted students. The "true" number of gifted students will be determined by analyzing various test and performance information.

Prepared for The Alpha Project for Able Learners, Superintendent of Public Instruction, Olympia, Washington 98504

1. ***Instrument Selection.*** We have now reached what is perhaps the most difficult task in evaluating programs for the gifted and talented — selecting and constructing appropriate data gathering instruments. Although it is beyond the scope of this ***Guidebook*** to cover the essentials of a course in measurement or instrument development, an attempt will be made to provide some basic guidelines and references for instrument selection and construction. It is at this point that the knowledge and competence of the evaluator will weigh heavily in the quality of the evaluation. Therefore, it is recommended that if the field evaluator does not have a strong background in tests and measurements, he should obtain the assistance of a consultant with extensive experience in this area of specialization. The testing business has experienced tremendous growth in size and complexity over the past several years and it is unrealistic to expect a non-specialist to be aware of the wide variety of available instruments and the technical problems that are involved in testing. If the evaluator is unable to secure the assistance of a consultant, it is recommended that he familiarize himself with the principles of testing by reviewing one or more of the books in this area that have been included in the bibliography on Measurement, Statistics, and Research Design.

To begin with, a basic rule to follow is that the evaluator should always explore the availability of existing instruments before he attempts to develop his own materials. This is especially true for tests that measure student performance. The construction of valid and reliable tests is an extremely time consuming and expensive affair that is best left to the professionals. Even questionnaires and rating scales should possess respectable levels of reliability and validity, and therefore it is suggested that a thorough review of existing instruments be conducted before instrument construction is considered. A good place to begin this review is in the annotated bibliography of Instrument Sourcebooks that is included at the end of this ***Guidebook.*** These sourcebooks describe thousands of instruments that have been developed by commercial publishers, researchers, and practitioners. The instruments are classified according to the areas which they measure and it is generally quite easy to locate which instruments are available for assessing particular areas. Some of the sourcebooks include instruments in their entirety and many provide information about reliability, validity, age and grade level, cost, and administration time.

The decision regarding which instrument to select should be guided by three basic criteria. First and foremost, we must determine the validity of the instrument for our particular situation, i.e., how adequately the instrument measures the specific educational goals or activities that we are attempting to evaluate. Most standardized tests and inventories include information on validity in their manuals. This information should be checked, and in addition, we should carefully review the content (specific items) of the instrument to make certain that it fits our purpose. Reliability of information should also be checked, but a highly reliable instrument is of no value whatsoever if it does not measure what we want it to measure; thus, validity is an absolutely essential requirement. Related to validity is the issue of ***usefulness*** of the results in the decision-making process. Each instrument should contribute

information that will help us to make decisions that are related to one or more of the Key Features. A good way to estimate usefulness is to think ahead to what types of action can be taken if the results turn out in a certain way. If clearly positive or negative results warrant identifiable action, then chances are the instrument meets the usefulness criterion.

The second criterion that should guide us in instrument selection is the appropriateness of the instrument for the population that is being examined. Factors such as level of reading difficulty, clarity of instructions, length and attractiveness of format are important considerations in selecting instruments for adults as well as children. Persons can quickly become frustrated or weary if an instrument is confusing, boring, or does not contain material which is relevant. Whenever possible, it is a good idea to field test an instrument on a small sample population in order to estimate what type of reaction you will get to the instrument itself rather than what it measures.

The third criterion which we should consider in instrument selection is simply practicality. An instrument that is extremely time consuming, expensive to score, or requires the services of a highly trained examiner or observer may very well be an uneconomical selection. If large numbers of students are being tested or numerous questionnaires are being administered, it would be wise to choose instruments that can be scored by machine. Practical requirements should, of course, be weighed in relation to the information that is necessary for decision making and the human and financial resources that are available in an evaluation study. It goes without saying that the practicality criterion should never be substituted for the more important criteria of validity and appropriateness.

Evaluators who work on curriculum development projects frequently become involved in test construction, however, the work of most field evaluators is restricted to constructing questionnaires, rating scales, and other types of non-test instruments. But field evaluators usually are responsible for test selection and therefore they should be familiar with the following Basic References.

BASIC REFERENCES on Tests in Print

These two books provide comprehensive categorical listings of almost all commercially available tests that are printed in the English language. They are absolutely essential items in the libraries of professional evaluators.

Buros, O. K. (Ed.) ***Tests in Print.*** Highland Park, New Jersey: Gryphon Press, 1961.

Buros, O. K. (Ed.) ***Tests in Print II.*** (Same Publisher), 1974.

2. ***Instrument Construction.*** Let us now turn our attention to some of the instrument construction activities in which the field evaluator is typically engaged. At the bottom of the second column in Figure 12 we note a breakdown of the types of instruments that evaluators are usually called upon to construct. After the Key Features have been identified and the Activities Being Evaluated have been listed in the Data Collection and Analysis Guides (Figure 15), the evaluator must decide which types of instruments will effectively deliver the kinds of information that he is seeking. It is at this point that the evaluator should consult with a measurement specialist or review a basic book on testing in order to determine the advantages and disadvantages of each type of instrument.* Generally, questionnaires, rating

* I have found Thorndike and Hagen's book, ***Measurement and Evaluation in Psychology and Education*** (Third Edition) to be one of the most useful and clearly written texts in this area. It is cited in The Basic Reference on page 11.

scales, and checklists are most useful for assessing attitudes toward a program or patricular components of a program. Interview schedules may also be used to probe attitudes at greater depths and to determine some of the causes that give rise to certain attitudes. Later in this section we will also show how sociograms have been used to evaluate the attitudes of non-program students toward students who are taking part in a gifted program.

Logs, anecdotal recording system, inventories, and checklists can be used to evaluate various aspects of student performance. Again, we will provide examples of such instruments in subsequent parts of this section. Finally, observational systems are most useful for evaluating processes such as classroom interaction and the dynamic qualities of the learning environment. A discussion dealing with observational systems and instruments was included in the Process Evaluation section of Chapter Two.

Before we go on to describe some of the specific steps in instrument construction, it is important to point out that there are two approaches to the development of homemade instruments. The first and most frequently used approach is simply for the evaluator to sit down and design an instrument that seems to make sense because the items logically correspond to the activity being evaluated. In this case, we claim that the instrument has "face" validity because it ***appears*** to be an appropriate measure. When resources for evaluation are limited, face validity is often the only type of claim that an evaluator can make about the quality of an instrument. Although evaluators with a great deal of accumulated experience can undoubtedly develop instruments with very good face validity, the value of many evaluation studies is often questionable because the relative strength of key instruments has not been established.

The second approach to the development of homemade instruments involves several systematic procedures that are designed to establish content validity, construct validity and reliability. These procedures resemble the first two steps in the Key Features System and they will be discussed in relation to the development of instruments that can be used to measure attitudes toward gifted programs. The same procedures can also be used to construct other types of instruments, but attitude measurement will serve as our example since this is the type of instrument that the evaluator is most frequently called upon to construct.

a. ***Measures of Attitudes Toward Gifted Programs.*** We will use an instrument entitled the ***Student Attitude Toward Independent Study Questionnaire*** (SATIS-Q) to review the steps involved in establishing validity and reliability. This instrument and an analysis of the results obtained from actually using it in a specific program are discussed here in their entirety for three reasons. First, the discussion provides a case study in instrument construction that can serve as a model for instruments that you may have to develop. Second, it provides an example of how to write-up the results of an attitude evaluation. And third, in the event that you may want to adopt the SATIS-Q for your own purposes, the case study can be used to help support your rationale for such an adoption.

Case Study in Instrument Development

The first step in constructing the SATIS-Q consisted of developing a list of relevant concerns and issues related to this particular method of learning. This was done by reviewing the literature in this area and interviewing students, teachers, counselors, and administrators who were involved in independent study programs. Representative samples of these groups of persons were also asked to respond to an open-ended questionnaire (See Appendix A). These "input" procedures helped to establish the content validity of the scale. From information derived through these procedures, an initial pool of 65 rating scale items was generated. Each item described a particular characteristic, objective, or anticipated benefit of independent study, and students responded by marking a Likert type scale which delineated five levels of quality for each program characteristic (Excellent, Above Average, Acceptable, Below Average, Extremely Poor).

The pilot instrument was administered to 109 students who were enrolled in an independent study program for at least one year. The construct validity was examined by generating an intercorrelation matrix for the response data employing a principal component factor analysis followed by an oblique rotation. An eight component solution accounted for 75 percent of the variance associated with the item interrelationships; however, three factors were dropped from the instrument because of the small number of items that achieved loadings of .35 or higher. Thus, the final version of the instrument contained five factors and 27 items. The nature of each factor will be discussed in the section that follows. Table 1 contains the primary pattern matrix for the 27 items that were retained in the SATIS-Q. The following five factors emerged: Influence of Independent Study on Motivation and Career, Freedom to Pursue Personal Interests, Effect of Independent Study on Study Habits and Thinking Processes, Degree to which Independent Study Helps to Fulfill Personal Objectives, and Degree of Challenge and Opportunity for Self-Expression. Table 2 contains the intercorrelations of the derived factors. Table 3 contains the number of items and the alpha internal consistency reliabilities for each derived factor. Although Table 2 shows that some of the factors were sufficiently correlated so they might be combined to increase reliability (e.g., Factors I and III, II and IV), the reliabilities reported in Table 3 indicate that the five scale scores can be used separately in assessing attitudes toward independent study. Since Factors I and III ($r = .48$) and II and IV ($r = .41$) are related, persons using the scale may wish to combine the factors to produce a more reliable composite score based upon a larger number of items.

Table 1

Primary Pattern Matrix: Principal Component Solution and Obliguimax Transformation for Items Retained on the SATIS-Q*

ITEMS	I	II	III	IV	V
1		37			
2		91			
3		87			
4					38
5			64		
6				88	
7					59
8	59				
9					70
10	72				
11	90				
12	86				
13	85				
14			74		
15			96		
16			83		
17				56	
18	52				
19	56				
20					35
21					59
22	61				
23	65				
24			65		
25				48	
26		51			
27				53	

* All entries multiplied by 100 to elimated decimals.

Table 2

Intercorrelations of Derived Factors on the SATIS-Q

	I	II	III	IV
II.	.25			
III.	.48	.28		
IV.	.33	.41	.36	
V.	.38	.29	.37	.14

Table 3

Number of Items and Alpha Internal Consistency Reliabilities for the SATIS-Q

FACTORS	NUMBER OF ITEMS	ALPHA RELIABILITY
I. Influence of Independent Study on Motivation and Career	9	.90
II. Freedom to Pursue Personnal Interests	4	.76
III. Effect of Independent Study on Study Habits and Thinking Processes	5	.87
IV. Degree to Which Independent Study Helps to Fulfill Personal Objectives	4	.79
V. Degree of Challenge and Opportunity for Self-Expression	5	.74

Description of Program

The revised version of the SATIS-Q was administered to 196 high school students who participated in the Independent Study Program for Gifted Students (ISP) sponsored by the Hamden-New Haven (Connecticut) Cooperative Education Center. Students who are enrolled in one of the four high schools served by the ISP may pursue one or two topics in lieu of a regular course or courses in the usual school program. Each student is assigned to a teacher or resource person who specializes in a particular content area, and together they develop a proposal for study which serves as a guide for investigating a particular independent study topic. Many non-traditional topics are explored and students are frequently involved in innovative research that is sometimes conducted in out-of-school settings.

The means, standard deviations, and the alpha internal consistency reliability coefficients for each factor on the SATIS-Q are presented in Table 4. An analysis of student attitudes for each of the five factors measured by the SATIS-Q follows.

Table 4

Means, Standard Deviations, and Alpha Internal Consistency Reliability Coefficients for ISP Students on the SATIS-Q

	SCALE I	SCALE II	SCALE III	SCALE IV	SCALE V	TOTAL
Number of Items	9	4	5	4	5	27
Maximum Possible Score	45	20	25	20	25	135
Mean Score	31.70	16.03	18.35	15.17	18.42	99.67
Standard Deviation	6.81	3.12	3.70	2.82	4.07	16.62
Alpha Reliability	0.83	0.73	0.82	0.67	0.70	0.87

Factor I: ***Influence of Independent Study on Motivation and Career.*** The nine items which define this factor indicate that the program is strongly influential in helping students to decide on the area(s) in which they would like to major in college. Students scoring high on this factor feel that the program is influential in helping them to determine the types of careers they would like to pursue. A large majority of students indicated that the ISP increased their excitement about learning and helped them become better evaluators of their own work.

Factor II: ***Freedom to Pursue Personal Interests.*** This factor generally reflects the students' perceived opportunities to select independent study topics which are of personal interest and to pursue these topics to the extent desired. Persons who score high on this factor generally feel that independent study allows them freedom in both content selection and the degree to which they wish to delve into a topic. Student attitudes in this area are extremely favorable. Almost all of the participants rated the program very high on this factor and approximately two-thirds of the students indicated that the objectives of the ISP were in agreement with their own personal objectives.

Factor III. ***Effect of Independent Study on Study Habits and Thinking Processes.*** This factor deals with such processes as critical thinking, organizing and focusing one's thoughts, and developing more effective study habits. High scores on this factor reflect a positive influence of independent study on processes that contribute to effective learning. On the average, sixty to seventy percent of the students in the ISP displayed very favorable attitudes toward the program as far as its effect on these processes was concerned. Almost 70 percent of the respondents indicated that the program helped them to become better acquainted with their preferred styles of learning.

Factor IV: ***Degree to Which Independent Study Helps to Fulfill Personal Objectives.*** The four items defining this factor deal with the way in which the independent study approach to learning

is organized and how well the program meets personal objectives. High scores on this factor indicate that students are satisfied with the way in which the program is meeting their objectives. Between one-half and three quarters of the students involved in the ISP responded positively to items which measure this factor. Especially favorable attitudes were recorded on program characteristics dealing with the extent to which the ISP developed individual responsibility and the degree to which the program fulfilled students' immediate educational needs.

Factor V: ***Degree of Challenge and Opportunity for Self-Expression.*** The five items which define this factor are concerned with the extent to which the independent study approach to learning is challenging and the opportunities that independent study provides for expressing ideas and feelings. High scores reflect positive attitudes in these areas. More than 70 percent of the students viewed the program as highly challenging and an equal proportion indicated that the ISP provided them with a great deal of freedom to express their own ideas and feelings. Interaction with teachers was favorably evaluated by a majority of students; however, approximately one-third of the students indicated that they would like greater opportunities to meet with consultants and experts on topics that they are pursuing through the ISP.

Although a great deal of time and effort went into the construction of this instrument, student attitudes were considered to be a very important Key Feature in the Independent Study Program; and therefore, it was worthwhile to construct a valid and reliable instrument that could be used for continous program assessment over the years. Since the SATIS-Q yields mean scores and standard deviations, comparisions can be made to determine the effectiveness of programmatic efforts to improve attitudes on any or all of the five factors measured by the instrument.

Additional sample instruments for evaluating both student and parent attitudes toward programs for the gifted are included in Appendix A. This appendix also includes an instrument that can be used to evaluate the attitude of non-program teachers toward the gifted programs.

Another area related to attitude measurement is concerned with the feelings of non-program students toward participants in special programs. This issue emerged as a Key Feature in the evaluation of Project Gifted in East Providence, Rhode Island where gifted students spend part of their time each day in a regular classroom and part of their time in a special class. Using standard sociometric technique,* all students in the regular classroom were asked to indicate their first, second, and third choice with regard to whom they would like to sit near, work with, and play with. The results were tabulated on forms such as the one presented in Figure 16 so that means and standard deviations

* See references by Gronlund (1959) and Gardner and Thompson (1958) in the Bibliography on Instrument Construction.

Figure 16

Sociometric Tabulation Form

Name _____ School _____

Teacher _____ Grade _____

Sit Near	Tally	Number	Weight	Number Times Weight
First Choice			3	
Second Choice			2	
Third Choice			1	
			Total Score	

Note: The same format should be used to record Work With and Play With data.

could be computed for gifted and non-gifted students. The results of this inquiry are presented in Table 5. (Note the tabulation form and table show the results are included in the event that you may want to use this technique. The formula for computing the significance of difference between means can be found in most elementary statistics books.) As can be seen from this table, only three of the comparisons between gifted and non-gifted students were statistically significant , and in these three instances, the gifted students earned higher mean ratings than the comparison groups. Thus, one of the conclusions reached in this evaluation was that separating gifted students for special instructional purposes does not result in any detrimental effects so far as peer preferences are concerned and gifted students in the East Providence program appear to be equally accepted by the students in their regular classrooms.

Table 5

Means, Standard Deviations, and Levels of Significance for Sociometric Status of Project Gifted Students, East Providence

Groups	Regular Class		Gifted Students		Difference	t	Level of Significance
	mean	s.d.	mean	s.d.			
Fourth Grade							
Sit Near	5.17	4.67	7.30	6.34	2.13	1.23	n.s.
Play With	5.27	4.35	7.90	6.23	2.63	1.61	n.s.
Work With	4.85	4.51	9.90	6.14	5.05	1.59	.05
Total	15.31	12.68	25.10	17.57	9.79	2.07	.05
Fifth Grade							
Sit Near	5.27	4.09	6.64	5.14	1.37	1.10	n.s.
Play With	5.19	3.93	6.79	5.06	1.60	1.33	n.s.
Work With	5.30	5.62	6.50	5.32	1.20	0.74	n.s.
Total	15.76	12.56	19.93	14.69	4.17	1.11	n.s.
Sixth Grade							
Sit Near	5.54	3.91	5.38	4.65	-.16	0.13	n.s.
Play With	5.20	3.78	4.23	4.66	-.97	0.85	n.s.
Work With	4.56	3.23	7.85	6.36	3.29	2.98	.05
Total	15.34	9.78	17.54	14.60	2.20	0.71	n.s.

From: Renzulli, J. S., *An Evaluation of Project Gifted.* Storrs: University of Connecticut, 1973.

b. ***Non-Test Meaures of Student Growth and Performance.*** Rating scales, checklists, logs, and anecdotal recording systems are the types of non-test instruments that are most frequently used to evaluate student growth and performance. Several examples of instruments that have been used for these purposes are included in Appendix B. While most ratings of student performance are designed to be completed by teachers, we note in Appendix B some examples of parent and student scales that focus on a combination of abilities, motivation, and general adjustment to participation in programs for the gifted and talented. At this point we must raise a question about the ***appropriateness*** of sources of data. While it is certainly valid to ask parents about their childrens' enthusiasm, attitudes toward various aspects of a special program, and activities that the parents can observe at home, we must be cautious when asking parents to rate student performance. Parents may simply not have the opportunity or knowledge to assess school performance adequately because they are somewhat removed from the center of the learning situation. When this is the case, their responses on performance rating scales may really be reflections of their youngsters' attitudes, and thus, so far as ***performance*** is concerned, we have used the wrong source of data. A good rule to follow in matching instruments with sources of data is simply never ask a person to second guess or answer out of ignorance. If respondents have not had numerous opportunities to observe the behaviors under investigation ***directly,*** then chances are they are not appropriate sources of data.

Constructing instruments that can be used to assess growth and/or performance presents certain problems for the evaluator. Very often the items included in these instruments are too vague to pinpoint the specific areas where growth has occurred. For example, a statement that asks the teacher to rate "The ability to use research skills," does not tell us exactly which skills the student has

mastered. An approach that focuses on relatively specific behaviors within the general area of research skills will help us to overcome the problem of vagueness. For example, we might ask the teacher to rate a youngster on the following behaviors:

1. The student used the following sections of reference books to locate information: (Scale)
   a. Table of Contents _____
   b. Index _____
   c. Appendix _____
   d. Bibliography _____
   e. Preface _____
2. The student uses the following references appropriately in locating desired information:
   a. World Almanac _____
   b. Readers' Guide to Periodical Literature _____
   c. Dictionary of American Biography _____
   d. Etc. _____
3. When presented with information in the following forms, the student can interpret it and translate it into his own language:
   a. Graphs _____
   b. Tables _____
   c. Topographical Maps _____
   d. Diagrams _____
   e. Flow Charts _____
   f. Etc. _____
4. The student has demonstrated the following skills in analyzing and presenting data:
   a. Calculation of Means _____
   b. Calculation of standard deviations _____
   c. Preparation of tables _____
   d. Preparation of graphs _____
   e. Preparation of trend analysis statements _____

It is important to keep in mind that rating scales or checklists of this type must be developed in accordance with the specific content of particular instructional goals. The evaluator should carefully review the curricular information that he obtained through Front-End Analysis, decide what type of instrument he will use, and then translate the information into an appropriate evaluation instrument. At this point the evaluator may want to work with teachers and curriculum coordinators to make certain that the instruments reflect accurate translations of the intended learning outcomes. It is also important to remember that a combination of instruments can be used to evaluate a particular component. For example, if a fairly valid test is available to assess some of the research skills discussed above, the evaluator may want to use this test in conjunction with a homemade rating scale that will cover skills not included on the test.

One of the areas that sometimes emerges as a Key Feature in the area of student growth has to do with self-concept development or other areas of psychological adjustment. Generally, a great deal of psychometric know-how is necessary for instrument construction in this area and therefore it is recommended that evaluators consider already available instruments if they want to assess changes in self-concept. A book entitled ***Self-Concept Measurement: An Annotated Bibliography*** (Coller, 1971) is included in the Instrument Sourcebook section of the bibliography. We have, however, included one homemade self-esteem inventory in Appendix B to give you some idea of what is typically included in such instruments.

Because of the many problems involved in evaluating the higher level objectives of programs for the gifted and talented, and in view of the great deal of individualization that usually characterizes such programs, alternative approaches to evaluation must be considered. One such approach, developed for the Alpha Project for Able Learners in the State of Washington, involves the use of an anecdotal recording system which is presented in Figure 17. This system is designed to provide a continous chronicle of student growth by documenting several aspects of the learning process. The system focuses on specific "learning segments" for individual students. A learning segment is defined as any series of related activities directed toward the accomplishment of predetermined objectives.* A learning segment may require a day, a week or several months, and it is conceivable that a youngster may be working on several learning segments at one time. The system is mainly designed for individual documentation; however, if several students are working on a project together, and if their objectives are the same, the anecdotal record can very well be used for groups. There may, of course, be differences in the degree to which group members accomplish specific objectives and these differences should be recorded by individual rather than by learning segment.

The instrument presented in Figure 17 provides a structured approach for recording evaluative information. Before discussing how the instrument can be used as an evaluation technique we should point out a few related features. First, the instrument encourages teachers and students to be a little more "objectives-oriented" in planning learning activities. Second, the students themselves can participate in planning and in so doing, begin to learn the differences between various types of objectives. In places where versions of this instrument have been used students did much of the planning and record-keeping themselves. This involvement has caused students to become more responsible for their own education and has helped them to think more carefully about what they are studying and why they are studying it. Finally, in places where versions of the instrument have been used as a reporting system to parents, there have been very favorable reactions to questionnaires dealing with the degree to which parents have been informed about the program and the progress of their own children.

---

* Note: I do ***not*** believe that a gifted youngster's ***total*** program must be rigidly planned and predetermined. All students need an opportunity to explore randomly, to play around, and to spend some time just being themselves. This type of exploration may very well lead to the development of certain objectives, but I would like to emphasize that I do not advocate the use of anecdotal recording systems such as the one in Figure 17 for every single thing that a child does in the gifted program.

Figure 17

ALPHA PROJECT – EVALUATION OF STUDENT GROWTH

NAME _____ GRADE _____

TEACHER _____ SCHOOL _____

AREAS OF STUDY (Check all that apply)

__ Language Arts/Humanities __ Science __ Personal and Social Development

__ Social Studies __ Music __ Other (Specify) _____

__ Mathematics __ Art __ Other (Specify) _____

Brief Description of The Content of The Study _____

_____

Beginning Date _____ Ending Date _____ Number of Days ____

OBJECTIVES (List in order of importance)

1. _____
2. _____
3. _____
4. _____
5. _____

ACTIVITIES (Briefly list what the student did to accomplish these objectives. Underline any activity that you consider to be relatively unique)

COGNITIVE OBJECTIVES Check the highest level for each written objective						AFFECTIVE OBJECTIVES Check all that apply			ACCOMPLISHMENT OF OBJECTIVES				
1	2	3	4	5	6	A	B	C	Not At All	A Little	About Half	A Great Deal	Completely
Knowing / Remembering	Comprehension Translating, Interpreting, Extrapolating	Application(of learned material to concrete situations)	Analyzing (breaking down into component parts)	Synthesizing, Creating	Evaluating , Judging	Developing interest in and commitment to a topic area of study or learning in general	Developing skills that lead to better relations between people	Developing attitudes and values toward ideas, causes, social issues, etc.					

In the spaces below please indicate the degree to which you think each objective has been accomplished by :

1. Placing a check mark (✓) in the appropriate space for the cognitive objective
2. Placing the corresponding letters (A,B,C) in the appropriate spaces for each of the affective objectives

RESOURCES (Reference Books, Films, People, Etc.)

PRODUCT (Briefly describe any projects, stories, plays, filmstrips, etc. that resulted from this study. Attach samples if available.)

Prepared by: Dr. Joseph S. Renzulli - The University Of Connecticut Bureau Of Educational Research

Sponsored by; Superintendent Of Public Instruction - State Of Washington

When the instrument is used for evaluation purposes, the major task is analyzing the content in terms of the ***differences*** that characterize gifted programs. The objectives for each learning segment are listed and classified according to their cognitive and affective levels. As the evaluator reviews the anecdotal records he should attempt to ascertain whether or not there is appropriate emphasis on higher level objectives. His judgment should be guided by the general goals or policy statement which underlie the program. Thus, for example, if the program places heavy emphasis on the development of creative thinking, the records should show a heavy concentration of objectives and activities that promote this type of mental process. The evaluator should study the objectives in relation to other information included in the record and attempt to determine if congruence exists between the Activities, Resources, and Products on one hand and the objectives on the other.

The Areas of Study section will help to point out such things as interdisciplinary studies or topics that do not fall into one of the traditional curricular areas. In a similar fashion, the Activities, Resources, and Product sections will help to reveal whether or not educational experiences and outcomes are generally different from those that occur in the regular school program. As information begins to accumulate, the evaluator must examine each section of the anecdotal record in terms of factors such as diversity, opportunity for self-expression, unusualness, and originality. He must constantly ask himself the question: "Would this student ***ordinarily*** have the opportunity to do these things in the regular school program?"

Admittedly, this approach to performance evaluation places a great deal of reliance on (1) the accurate portrayal of information and (2) the experience and judgment of the evaluator. Nevertheless, it offers an alternative means for systematically describing and analyzing ***what actually goes on in a program***, and in this respect it may have certain advantages over tests. Boards of education and funding agencies frequently ask: "What is different about the program for the gifted?" and "What do students actually do in the gifted program that isn't being done in the regular classroom?" The answers to these questions require descriptive information rather than test scores, but the descriptive information must be carefully analyzed in order to call attention to the differential nature of experiences. As the evaluator prepares a written analysis of anecdotal information, he should constantly focus attention on the quantity and quality of learning experiences and products which, in his judgment, represent relatively unique departures from the regular curriculum.

Another approach that has been developed to provide information about what is going on in a gifted program is the Classroom Report (See Figure 18). Stake (1970) describes this report as follows:

> The purpose of the Classroom Report is to assist the teacher who desires to tell various people about her classroom. We are acquainted with many teachers who want to tell parents or townspeople or administrators more about their student group and curriculum and teaching techniques than they can in informal conversations. Usually the writing chore is too great a burden.
>
> In developing this form, we have assumed that reporting on students as a group (rather than individually as you do with a report card) is a sensible thing for teachers to do. We believe that schools

have a responsibility to keep the community informed, and we believe that the work that goes into the preparation of a report like this helps the teacher put a number of important responsibilities into perspective. Furthermore—with increasing demands for evaluation and accountability—we feel that by making evaluation reports that are sensible to teachers and parents we can better resist irrelevant evaluation requirements.

A bit of advice for using the Classroom Report: (From the Manual for the Classroom Report).

1. Think of this as an opportunity to improve your communication with parents, administrators, townspeople—and even your mother. We're serious. Think of people you have been telling, or whom you would like to talk to, about what you are doing in your classroom. Then think of how you might use this form to get a good conversation started, or to improve an already-good conversation.

2. Think who your readers will be. Parents, students, school board members, the Junior Chamber of Commerce? Will your Report be included in a project evaluation report? Different readers think that different information is important. Usually there won't be time to write up a different Classroom Report for different readers, but you probably can make ***one*** report relevant to a large audience.

3. Use the form the way you want to. Change or add words as needed. Note that the report comes in three sheets (making 12 pages) but some teachers use only one or two sheets. You can add your own sheets as inserts—but don't plan a grand report that never gets done.

4. Recognize that it is hard work to collect information—but that often the hardest-worked-for information is the best. (Ask any newspaperman.) You have good information already. Some of it would be better information if you used a special instrument or procedure to collect it. This manual will suggest some possibilities.

Figure 18
CLASSROOM REPORT

Classroom Report

ILLINOIS GIFTED PROGRAM

STAFF

STUDENTS

STUDENT SELECTION PROCEDURES

SPECIAL CLASSROOM FACILITIES

SPECIAL BUDGET ALLOWANCES

The central idea of the Illinois Gifted Program is that the special talents of all children should be given special opportunity in school to develop. Each participating school district decides how it will use the limited funds it gets. The following objectives have been set forth for the program in this classroom.

CLASSROOM OBJECTIVES:

CLASSROOM EMPHASES:

	Emphasis given in this classroom		
. . . to develop . . .	**Extra**	**Usual**	**None**
Better ability to learn	____	____	____
Problem solving abilities	____	____	____
Humanistic values	____	____	____
Creative ideas	____	____	____
Artistic performance	____	____	____
Vocational skills	____	____	____
Social criticism	____	____	____
Self-awareness and esteem	____	____	____
Content understandings	____	____	____
Sense of responsibility	____	____	____
Respect for authorities	____	____	____

ACCELERATION or ENRICHMENT

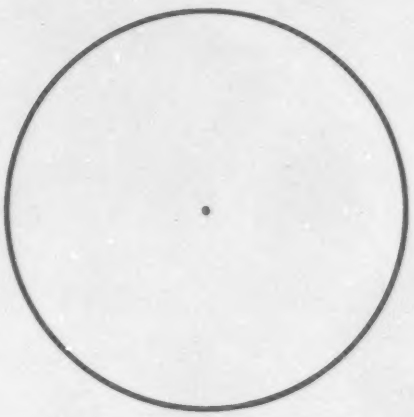
We attempt to have the students

____ learn the same things that other students do but learn it faster.

____ learn additional things that other students don't get much of a chance to learn in school.

MAJOR CLASS ACTIVITIES:

USE OF SCHOOL TIME



I. Individual Student Work
   - Assigned reading
   - Work on projects
   - Exercises, tests

II. Teacher Explanations

III. Exchange of Ideas
   - Recitation
   - Inquiry
   - Discussion

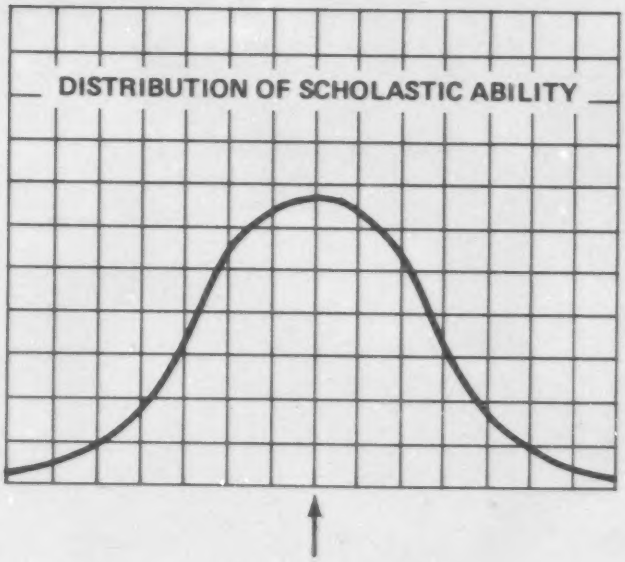
IV. Social, recreational

V. Administrative matters

The pie-chart above indicates approximately how time is spent in this classroom. The activities for any one day, of course, would not necessarily look like this.

AN ILLUSTRATION OF STUDENT ACCOMPLISHMENT THIS PROJECT WOULD LIKE TO TAKE PARTIAL CREDIT FOR:

Scholastic ability, similar to what many people call IQ, was measured by the _____ (test) on _____ (date)



The bell-shaped curve at the left indicates the spread of scores of students this age across the nation. Each little box in the bar graph represents the score of one student in our classroom.

The scholastic giftedness of our group is indicated by the clustering of scores to the right of the arrow.

STUDENT PROGRESS

The following items are examples of the kinds of performance this project emphasizes. Note the progress of the class during the period.

VIEWS OF THIS CLASSROOM

Recently we tried to find out what others have been thinking about this classroom. Their views can give us a better idea about what is needing change and what is important to keep.

Views were gathered from:

	Classroom's Best Features	Features Needing Change
Work on Thought-processes	____	____
Subject-matter coverage	____	____
Clarity of teaching	____	____
Student motivation	____	____
Relevance to "real world"	____	____
Utility for later schoolwork	____	____
Pace of work scheduling	____	____
Workload	____	____
Chance for self-determination of work	____	____
Facilities; materials	____	____
Class activities	____	____
Group atmosphere	____	____
Acceptance of individuals	____	____
Teacher competence	____	____
Student competence	____	____
Evaluations of students	____	____
Project self-evaluation	____	____
Administrative support	____	____
Community support	____	____

Adapted from Stephen Lapan

STAFF EVALUATION OF THE CLASSROOM

Several staff members associated with the Gifted Program have discussed the strengths and weaknesses of this classroom. Their views are summarized here. The marks at the right indicate what they think needs change and what is important to keep.

Views were gathered from _____ persons. Each was asked to name the best three things about the classroom and the three things most needing change.

	Classroom's Best Features	Features Needing Change
Work on Thought-processes	___	___
Subject-matter coverage	___	___
Clarity of teaching	___	___
Student motivation	___	___
Revelance to "real world"	___	___
Utility for later schoolwork	___	___
Pace of work scheduling	___	___
Workload	___	___
Chance for self-determination of work	___	___
Facilities; materials	___	___
Class activities	___	___
Group atmosphere	___	___
Acceptance of individuals	___	___
Teacher competence	___	___
Student competence	___	___
Evaluations of students	___	___
Project self-evaluation	___	___
Administrative support	___	___
Community support	___	___

Adapted from Stephen Lapan

Which Describe Our Classroom Best?

☐ Students move freely in and out of the room, taking much responsibility for the use of their time.

☐ When a student explains something to the class the teacher is likely to praise him for his contribution.

☐ Students learn that growing up means "living by the rules"—and helping others to do likewise.

☐ Strong effort is made to get students to know the answer to questions such as those on standardized tests.

☐ Assignments are made clearly so that school time is used wisely and productively.

☐ When a student explains something to the class the teacher is likely to invite him to discuss it further.

☐ Laughter, small talk, an even occasional outburst are common in this classroom.

☐ Strong effort is made to get students to think through and defend their own opinions.

☐ Most of the important work we do is in individual study and homework.

☐ Our test scores are less important to us than what a student does in working with others.

☐ We make an effort to relate what we do in school to what adults do in their work.

☐ Students compete with each other. It is important to them to get good marks.

☐ Most of the important work we do is in group projects in the classroom.

☐ What a student does on our tests is the best indication of how well he is succeeding.

☐ We emphasize that it is important for the students to decide (as a group) what is worth while.

☐ Students tutor each other. It is important to them that their friends learn too.

Comment:

Adapted from Joe Steele

THE ILLINOIS PLAN FOR GIFTED CHILDREN

The legislation creating the Illinois Plan for Gifted Children states that the purpose of the legislation is to encourage and assist in the development of programs for students who are mentally accelerated to the extent they can profit by special educational experiences.

Because the Illinois Plan includes provisions for flexibility in identification and in educational experiences, encouragement is given for providing special educational activities to the gifted child who is achieving at a high level, has exceptional creative ability, and/or has potential to be outstanding in any one of the many traits included in giftedness even though the student may not have as yet developed those talents.

The support and encouragement given to schools to identify various kinds of high-ability students, and to develop special programs for individuals, increases the retrieval of talent at various socioeconomic levels as well as at all educational levels in the public schools of Illinois.

STATE STAFF

Superintendent of Public Instruction . . . . . Ray Page

Deputy Superintendent . . . . . Verne E. Crackel

Assistant Superintendent, Division of Special Education Services . . . . . Robert E. Cain

Director, Department of Program Development for Gifted Children . . . . . Herbert Baker

Assistant Directors, Department of Program Development for Gifted Children . . . . . Robert Hardy, June Cox

This report was prepared by the Center for Instructional Research and Curriculum Evaluation, University of Illinois at Urbana-Champaign, 1969.

c. ***Inservice Training.*** One of the areas that frequently emerges as a Key Feature in programs for the gifted is the value and effectiveness of in-service training or staff development activities. These activities are usually evaluated by means of questionnaires and rating scales that are administered at the end of individual training sessions and at the conclusion of workshops or institutes. Sample questionnaires that have been developed for these purposes are included in Appendix C.

Two considerations should be kept in mind when constructing instruments to evaluate inservice training. First, the instruments should focus on (1) the importance or relevancy of the material that was covered in training, and (2) the effectiveness with which specific topics or skills were taught. Negative reactions to inservice training are often a function of the appropriateness of the content rather than how well it was covered, and therefore, it is important for the evaluator to find out who selected the topic(s) and trainer(s) for the workshop, why they were selected, and if the participants had any input in the planning. As far as effectiveness is concerned, there is little value in obtaining feedback unless we can identify specifically which areas were or were not covered adequately. Thus, an attempt should be made in instrument construction to break down training activities into their component parts so that we avoid the vagueness and uncertainty that frequently results when questionnaire items are too general.

"FINE PRESENTATION, BUTTERWORTH, CREDIBLY RESEARCHED AND VALIDATED. BUT I DON'T KNOW IF OUR CLIENT WOULD BUY THE IDEA OF AN OVERHEAD SEWAGE SYSTEM."

This leads us to the second major consideration in evaluating inservice. training—how feedback information will be used. In far too many cases, workshops, institutes, and especially visiting speakers are one shot deals that may be good or bad, and there is little anyone can do about it (except perhaps to walk out) once a particular session or speaker has gotten underway. In order for the evaluation of training to be of any value whatsoever, the information

obtained from questionnaires or rating scales must lead to certain conclusions, actions, and perhaps follow-up evaluation activities. For example, if teachers evaluate a workshop on creativity training as being very effective in providing them with the skills necessary to teach creative writing, but ineffective in the area of creative dramatics, then we may want to recommend certain actions. If creative dramatics is an important part of our program, perhaps we will want to redefine our expectations for this area of training and seek another person to conduct a workshop. A report of the previous workshop and a list of expectations should be given to the trainer prior to the workshop so that he or she will be able to focus the training appropriately. Another action may be to restrict the original trainer's involvement in future workshops to creative writing; or, if we are stuck with this person for a long period of time, to provide him with the feedback and expectations so that he will improve his presentation in creative dramatics.* Follow-up evaluation activities might focus on student products and/or classroom processes that we expect will take place as a result of the training.

The main point here is very simple. The evaluation of inservice training should have a future programmatic orientation; otherwise there is little value in going to the trouble of gathering such data. All too often, we waste people's valuable time by asking them to fill out questionnaires that do not have a particular purpose so far as program improvement is concerned. An analysis of these purposes will help persons responsible for planning in service training to look more carefully and systematically at their overall training program.

d. ***Program Operation.*** A final area of consideration in instrument construction deals with Key Features that relate to the ways in which programs are operated. Prime Interest Groups such as teachers, parents, and board of education members may, for example, be interested in how the program is managed, how information is disseminated, and how teachers react to certain program activities. The Management Evaluation Form included in Appendix D was designed to evaluate the following four characteristics of a program director: Communication, Management Style, Planning, and Creativity. These characteristics were determined through Front-End Analysis techniques, and since several persons expressed concerns about how effectively the project director related to various groups, the instrument was administered to all of the groups listed on the last page of the form. This application helps us to illustrate an important point in instrument construction. Since various group members interact with the project director in different ways, some of the questions on the form are clearly inappropriate for certain respondents. For this reason, a "No Opportunity to Judge" or "Not Applicable" column was included in the rating scale. This approach avoids the problem of forcing people to respond to items which may be irrelevant to them. The results of this instrument and the feedback to the director were classified according to the various categories of respondents (Sources of Data, and in this way the director could use the information for improving his interaction with each respective group.

---

* I believe that trainers and speakers should always be provided with feedback even if they are not scheduled for additional work in a particular school. If the feedback information helps to improve the presentation then it may benefit other persons that the speaker will address. In this case, evaluation will have made a contribution to the movement of gifted education at large.

Appendix D also includes some sample follow-up questionnaires that were used to determine the relatively long range impact of programs for the gifted and talented. In most cases, these questionnaires deal with several types of information and they could very well be categorized under a variety of headings. They are included here as examples of the kinds of information that typically is sought in follow-up studies. We have also included a sample rating scale that was developed to evaluate a particular aspect of program operation. The instrument entitled "The Evaluation of Identification Procedures by Selection Committees" was designed to determine the usefulness of several types of information that are used in a case study approach to student identification. The results are intended to help streamline the identification system by eliminating information that is of limited value in decision making.

3. ***Summary.*** Instrument selection and development is one of the most difficult and time consuming tasks of the evaluator. Three major concerns should guide his work in this area. The first is an ***accurate translation*** of Front-End Analysis information into Key Features. The second is establishing ***appropriate relationships*** between Key Features and the instruments that will be used in data gathering. This step includes careful consideration of the psychometric qualities of the instruments and identification of appropriate sources of data. Finally, the evaluator must be concerned with ***economy and parsimony*** as they relate to the entire data gathering operation. Too many tests, questionnaires, interviews, etc. can have a negative influence on the attitudes of people toward evaluation; and this, in turn, may affect the ways in which they respond to the evaluator and his tools.

C. Step III. Data Collection and Analysis

1. ***Data Collection.*** We have used the term "data" to refer to any type of information that is collected for evaluation purposes. Some data will undoubtedly consist of test scores and statistical summaries, but the term is used here in a broader context to include the kinds of information that are derived from samples of students' work and descriptive material such as the information that might be collected on anecdotal recording systems (See Figure 17). One of the practical concerns in data collection is appropriate timing. After the evaluator has identified Key Features, Sources of Data, and instruments necessary for obtaining the data, he must then decide when the data will be gathered and who will gather them. These may appear to be simple tasks, but without careful planning important information can be lost or the value of very good instruments can be diminished. Suppose, for example, that an evaluator decides to use the ***Class Activity Questionnaire*** (CAQ) to determine if any changes have taken place over the course of a school year in levels of thinking and classroom climate. In this situation collecting comparative information is necessary and therefore the evaluator should make plans to gather the initial data clearly in the school year, but not before teachers and students have settled down to what is a fairly representative classroom environment. Collecting the data during the first week of school may present a highly distorted picture of classroom conditions. If, on the other hand, the evaluator decides half way through the year that he would like to do a comparative analysis of CAQ results it may be too late to document the classroom conditions that existed during the early stages of the program.

There are very few evaluators who have not said to themselves at one time or another: "Too bad I didn't get some information on (a particular skill or activity) back when the program was just getting started." Although changes in an evaluation design frequently take place after the evaluation has gotten underway, there is no substitute for careful and comprehensive planning ***before*** the program gets started. Even "little things" like school vacations, final examination schedules, or special events can play havoc with the timing of data collection, and therefore, it is important for the evaluator to develop a time line that takes into account both psychometric and practical concerns. Many techniques and systems have been developed to chart the sequential planning and work-breakdown structure of projects, but perhaps the best known approach is the ***Program Evaluation and Review Technique*** (PERT) which was designed to aid in the planning of many diverse activities (e.g., missile development, Broadway plays, research projects). Persons who have been responsible for large and complicated evaluations have found the following basic reference to be quite useful:

BASIC REFERENCE on Sequential Planning

The PERT system can get very complicated and therefore I would suggest that you use this reference to get ideas rather than to follow it slavishly. A practical hint in sequential planning is to have a school calendar laid out ***on a single page*** so that you can view the entire year at a glance.

Cook, Desmond L. ***Program Evaluation and Review Technique: Applications in Education.*** Washington, D.C.: U.S. Government Printing Office, 1966. (Price: 45 cents)

Timing is also important in terms of how often information is gathered and how much time is required to obtain the information. If parents, for example, receive too many questionnaires, or if the questionnaires are long and repetitious, they may respond to them in a haphazard fashion. Asking the same questions on rating scales ***and*** interviews might be a waste of the respondent's time (unless the evaluator has a particular purpose in mind such as cross-checking), and therefore, careful consideration should be given to the time-dimension of all data collection activities. It is a good idea to field test each instrument in order to obtain an estimate of the amount of time that it will require. Trying to squeeze a one-hour instrument into a forty minute period can result in the loss of valuable information and it may produce both frustration and hostility in the respondents.

Another concern in data collection relates to the issue of ***scaling***. This is an extremely technical aspect of psychometrics that has been hotly debated by behavioral scientists for years. Although scaling is a topic that is of primary concern to instrument developers, the precision with which evaluative data can be analyzed is usually a function of the type of scale employed in data collection. Decisions regarding whether to use a "Yes – No" scale, a 5-point scale (e.g., Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree), or some other scale are probably best left to the measurement specialist, but the field

evaluator may want to review some of the advantages and disadvantages of various scaling techniques. A number of the books in the bibliography on Instrument Construction deal with this topic and one book (Maranell, 1974) is devoted entirely to problems and issues related to different scaling procedures.

Before leaving this topic we should point out a few obvious, but very practical hints in data collection:

a. Research has shown that stamped self-addressed return envelopes produce higher return rates for mail questionnaires

b. Mail questionnaires should always have a letter of introduction that includes a statement indicating that program personnel are knowledgeable and supportive of the evaluation. The letter should emphasize the positive purpose of the evaluation (program improvement) and indicate how the results of the evaluation can be obtained when they are available

c. Letters and questionnaires that are sent to parents should be ***meticulously screened*** for errors in spelling, grammar, and facts about the program. The evaluator loses credibility in the eyes of some respondents when sloppy work is sent out

d. Questionnaires administered to students in small groups result in less goofing off than in large group settings

e. Whenever possible attitude questionnaires should be completed anonymously

f. Students sometimes feel intimidated even when completing anonymous questionnaires, and therefore, a non-program person should administer any instrument that asks for frank and honest opinions about the program or program personnel

2. ***Data Analysis.*** Data analysis involves the breaking down of information into its component parts so that we can make sense out of it. The way in which information can be broken down should be planned in the earliest stages of an evaluation so that we do not end up with data that is "unanalyzable." Generally speaking, two methods of data analysis are open to the evaluator once he has gathered information related to each Key Feature. These methods are logical analysis and statistical analysis.

a. ***Logical Analysis.*** Descriptive information such as the type that might result from anecdotal recording systems (See Figures 17, 18) must be logically analyzed in much the same way that a historian attempts to reach conclusions from the events about which he reads and observes. Information must be categorized according to some common characteristic and an attempt should be made to discover patterns, trends, or discrepancies that exist within each clearly discernable category.

Perhaps a very simple hypothetical example will help to illustrate how this process can be carried out. Let us assume that one of the major concerns of several Prime Interest Groups is: "How does the program for the Gifted differ qualitatively from the regular school program?" Let us further assume

that the evaluator has targeted ten gifted students who are participating in a special language arts seminar to serve as sources of data. The students and teachers have been asked to complete anecdotal records like the one in Figure 17. Finally, let us assume that we have access to information about the regular language arts classes in which these youngsters would have been enrolled had they not been in the special program. This information might consist of lesson plans, curriculum guides, and samples of student's assignments. After a one month time sample has been collected, the evaluator classifies information from each section of the record. In the Resources section he may note, for example, a trend in the seminar toward using more advanced level books and a wider variety of reference materials. The Activities section may reveal that the Seminar devotes a great deal of time to debates and student-led discussions, whereas the regular program emphasizes drill and skills development activities. After classifying items in the Product section according to whether or not they are convergent or divergent, the evaluator notes that products from the gifted program are much more divergent than products prepared by the same students in their regular language arts class. Armed with this information, the evaluator can make a case for the qualitative differences of the gifted program, and if called upon he can display the records and samples of students' products to support his assertion.

Records of this type only provide facts and the information will be valueless without painstaking efforts to highlight the patterns, the implications, and the logic of the material that has been gathered. This approach helps the evaluator to make sense out of unrefined and unclassified descriptive information and thus it represents a more sophisticated way of analyzing non-statistical data. While the approach might sound complicated or time consuming, it is not unlike the type of analyzing that evaluators have been doing for years when they deal with interview information and the results of open-ended questionnaires.

b. ***Statistical Analysis.*** The second method of data analysis is the well-known statistical approach. We will only deal briefly with this topic because it is an area that generally requires the assistance of a specialist or advanced levels of training that are beyond the scope of the ***Guidebook***. Although we will point out a few of the major considerations that the evaluator should be concerned with when he is analyzing statistical information, it is recommended that further reading be done in this area by persons who are either conducting highly statistical evaluation or who must communicate with statisticians. The bibliography on Measurement, Research Design and Statistics includes references on statistical analysis that have been carefully selected for the clarity with which they present this very complicated aspect of evaluation [See, for example, Popham and Sirotnik (1973) and Garrett (1968).]

The evaluator generally uses statistics for two primary purposes. ***Descriptive statistics*** are used to summarize large sets of numerical information so that we can quickly learn the status or characteristics of groups on particular variables. Means, standard deviations, medians, percentiles, and grade-point averages are examples of descriptive statistics that are frequently found in evaluation reports. They provide a vehicle for further analysis but do not, in and of themselves, make judgments or render opinions. And while we may get "a feeling" for conclusions by simply inspecting a set of scores, more sophisticated techniques must be used

in order to interpret accurately the meaning of descriptive statistics. Thus, the second purpose of statistics is to help us draw better inferences from the numerical material that we have gathered. The evaluator generally uses ***inferential statistics*** to determine if differences between scores are significant. For example, if a 10 point gain is observed in the mean scores on a post-test of creativity, inferential statistics can tell us the probability of whether or not this is a "real" gain or a gain that can be attributed to chance alone. In the jargon of the trade, we say that such a gain is or is not "statistically significant." Tests of statistical significance include t-tests, analysis of variance and covariance, multiple regression and many other less popular techniques.

Although this is an oversimplification of the difference between descriptive and inferential statistics (Indeed, my statistical friends would boil me in oil!), we will use it as the basis for pointing out some concerns with which the evaluator typically is faced. The first concern is selecting the appropriate descriptive statistic for further analysis. A simple example: if the evaluator is interested in comparing mean differences between groups he will be unable to do so if he ends up with percentile scores which cannot be averaged because of uncomparable differences between score points. Thus, the evaluator must think ahead and organize his work carefully so that he can end up with information in the proper form for data analysis. It is a good idea to seek the assistance of a statistician at the ***beginning*** of an evaluation study rather than after the data have been gathered. Elaborate statistics are of little value if basic underlying assumptions in design have not been met, and therefore ***appropriateness*** is an absoutely essential concern in statistical analysis.

A second concern in statistical analysis is the audience to whom the evaluator is reporting. Highly complicated statistical reports oftentimes serve limited purposes simply because the audience does not understand the statistical mystique that surrounds answers to questions which they have raised. It is a good idea for the evaluator to estimate the audience's level of sophistication during Front-End Analysis and attempt to report his findings accordingly. Many practitioners who simply don't trust highly complicated statistics may have a negative attitude toward an entire evaluation report without even knowing the content of the report. When it is necessary to use complicated statistical concepts, the evaluator should take the time to explain their meaning in his written and oral reports.

D. Step IV: Preparing Evaluation Reports

1. ***Organizing the Report.*** This section will deal mainly with the preparation of final reports, however, interim reports and briefs should follow a similar format. Interim reports usually deal with specific components of Key Features and in formative evaluation studies they are intended to provide in-process feedback so that appropriate modifications can be made as the program progresses. The information presented in interim reports can be included in final (Summative) reports, and in a carefully planned evaluation study, the evaluator can actually draw a good deal of the content for his final report from the interim reports. A good time-saving device for the evaluator is to view each interim report or brief as a component part of his final report.

A very important consideration to keep in mind when preparing ***all*** reports is that the evaluator has a responsibility to discuss ***both*** the positive and negative aspects of his findings. All too often the reports of programs which are ***generally***

excellent dwell on the few areas that are in need of improvement. This practice sometimes gives the reader a very distorted perception of the program.

Let us assume the evaluator has collected all of the information he will need to file a final report. At this point he should review the major concerns of each Prime Interest Group and view each concern as a question the report will attempt to answer. The report should begin with an introductory chapter that contains a description of the program and an overview of the evaluation design. The overview should point out:

a. Why the evaluation was conducted

b. What question the evaluation will answer

c. The rationale for using particular methods and techniques

d. Problems that were encountered and any modifications that had to be made in the original evaluation design

e. When and how the data were collected

f. A brief forward-statement that describes the content of each chapter, section, and appendix that will follow

The overview is very important for a number of reasons. Very few people sit down and read an evaluation report from cover-to-cover; and thus, the overview helps to identify sections that will be of special interest to each Prime Interest Group. The rationale and problems sections (items c and d above) will let the reader know why the evaluator did and did not do certain things, and the logic underlying the evaluator's particular approach. It is at this point that the special problems of evaluating programs for the gifted and talented might be summarized (see Chapter Two). If the overview is carefully written it will help to "protect" the evaluator from questions such as "Why didn't you use more tests?" or "Why didn't you use a control group?"

Each chapter that follows the introductory chapter should be organized around one Key Feature. An overview of the chapter can be conveniently provided by including the Data Collection and Analysis Guide for the Key Feature under consideration. Within each chapter, the subsections should deal with the Activities Being Evaluated which are listed in the first column of the Guide (see Figure 15). For each Activity Being Evaluated, the report should discuss the information contained in the remaining columns of the Guide. The Source of Data or sample population should be described in terms of its size and characteristics (age, sex, grade, etc.). The Data Collection Method should briefly describe the instruments or techniques that were used, any information that helps to support the reliability and validity of the instruments, and how the instruments were selected or developed. Reference should be made to sample copies of the instruments that are included in the appendix and appropriate citations should be included whenever material or supportive information is taken from other sources.

After the techniques for data analysis and the time schedule have been described, the evaluator should present the results as they relate to each Activity Being Evaluated. It is at this point that he must decide which methods of data presentation will result in the clearest interpretation of findings. Numerical information should be summarized in statistical tables and graphs should be used to highlight growth patterns or trends that may not be readily discernable

from the tables. Most measurement and statistics books will provide you with examples of the format to follow in constructing tables and graphs. As has been indicated earlier, it is important to consider the level of sophistication of the audience when interpreting findings, and in cases where persons with different backgrounds will be receiving the report it may be necessary to include both technical and non-technical presentations. All tables and graphs should be carefully explained in narrative sections and each narrative should end with the conclusions that the evaluator has drawn from the data. If information is open to various conclusions and interpretations these should also be pointed out. In fact, evaluative data will frequently include conflicting information or information that does not lead to clear-cut conclusions. In these cases, the evaluator should simply present both sides of the issue. A valuable but often neglected form of reporting conflicting points of view is simply to present examples of verbatum comments that have been obtained from interviews and questionnaires. The comments should be grouped together according to similarities and differences or presented in a point/counterpoint fashion. This information will help to emphasize areas of agreement and disagreement and at the same time, make the reader aware of the reason why firm conclusions ***cannot*** be drawn.

Each chapter should end with a brief summary that highlights the major conclusions that are related to the Activities Being Evaluated. These conclusions will serve as the bases for making recommendations.

The final chapter of the report should contain a summary of the entire evaluation and recommendations that seem to be warranted by the findings. In some cases the summary information in this chapter will be repetitious of earlier sections; however, it should be kept in mind that many people will only read the final chapter. (A good idea is to write the first and last chapters in such a way that they can be put together to provide a brief but thorough picture of the entire evaluation. This shorter document is often useful for disseminating information to audiences ***other*** than key decision-making or funding agencies.)

Following a general overview, each section of the final chapter should be organized around a single Key Feature. The results and conclusions should be summarized and the recommendations should be listed. We have already discussed (see Chapter One) the importance of realistic recommentations; however, we should emphasize that the evaluator has a responsibility to present alternative recommendations that range from what he considers to be ideal courses of action to actions that are measured against available funds and resources. A time-perspective should also be taken into account when making recommendations. Thus, for example, if evaluative findings lead to the conclusion that several new areas of study or grade levels should be added to a particular program, the evaluator may want to suggest that these areas be systematically added over a two or three year period. This suggestion may be much more realistic than simply recommending that the changes be made ***en masse***.

The report should end with a general summary that highlights both the strengths of the program and those areas that are in need of improvement. After the report has been submitted, the evaluator should plan to meet with representatives of Prime Interest Groups to discuss his findings and to answer any questions that they may have. It is a good idea to be prepared to present

any backup data or information that will help to substantiate conclusions and recommendations.

2. ***Technical Aspects of Report Writing.*** Although all written work should be of the highest possible quality, there are special reasons why it is doubly important for the evaluator to produce accurate, well-organized, and attrative reports. Evaluation is a very touchy business and when the evlauator comes up with findings that are viewed as a threat by individuals or groups, they may try to raise questions about the evaluator's credibility. The easiest way to do this to to begin by criticizing the technical aspects of the evaluation report. Errors in spelling, poor grammar, and obviously incorrect facts or statistics immedicately put the evaluator on the defensive; and thus, he is "softened-up" for criticisms that may deal with his more substantive conclusions and recommendations. And once the evaluator is forced to admit error and inaccuracies on small things ***that could have been avoided,*** he may have set a pattern for backing-off on some of his more important conclusions. For this reason, evaluation reports should be as technically perfect as possible. It takes only a little extra effort to have reports edited, proofread, and reviewed for accuracy, but the protection that these steps give to the evaluator's credibility are well worth the effort.

CHAPTER FOUR: Selecting an Evaluator and Negotiating an Evaluation Contract

This brief chapter is primarily intended for persons who will be responsible for selecting external evaluators and negotiating with them on a contractual basis. We have already discussed some of the issues that are related to the technical competencies of the evaluator; and therefore our concern here will be with the practical aspects of selection and with the steps that might be followed in moving from the needs of persons who are hiring evaluators to evaluation proposals and contracts.

The primary concern in identifying and selecting a qualified evaluator is that he or she possess the ability to prepare a comprehensive evaluation design. Although a careful design will not guarantee a successful evaluation, it is a prerequisite to success and therefore the evaluator's most important qualifications should be in the areas of planning and management. Because of the relatively unique characteristics that frequently are associated with programs for the gifted and talented, it would also be a good idea to seek out evaluators who have had some experience in this area. Beyond these general qualifications, the type of program under consideration should serve as a guide in identifying the specific technical competencies that are necessary for carrying out particular kinds of evaluation studies. If, for example, a great deal of value is placed on test-related information by persons who will receive an evaluation report, then it seems quite obvious that we should seek out an evaluator with a strong background in measurement and statistics. Similarly, if a program deals mainly with a non-traditional area in which very few valid and reliable instruments are available, a major competency that we should look for in an evaluator is the ability to design and construct appropriate instruments and other data gathering techniques. Curriculum expertise is often necessary for programs that focus on particular areas of study; and an evaluation that depends heavily on interview information will require a person who relates well to people in face-to-face situations. When many diverse competencies are required in an evaluation study, it may be necessary to consider a team approach rather than a single evaluator. The chief evaluator or the person with whom a contract is negotiated may not necessarily possess all of the required technical skills; but, it is his or her responsibility to insure that appropriate specialists are involved.

The best criterion for selecting an evaluator is past performance. Although a person's credentials will tell us a great deal about the specific areas of competency that he or she possesses, actual examples of previous work are usually the best indicators of whether or not a prospective evaluator can deliver the kind of product that is required in a particular evaluative situation. A good idea in screening prospective evaluators is to ask them to submit examples of previous reports ***and*** the names of persons for whom they have carried out evaluation studies. In reviewing past accomplishments and letters of recommendation, it is important to estimate both the technical competencies of the evaluator and his availability and responsiveness to the programs for which he has worked. Quite obviously, all factors must be weighed in relation to one another. For example, if an evaluator's report is extremely critical of a certain program, then we must consider the program director's opinion of the evaluator in light of the criticism and the director's possible reaction to it. The task here is clearly one of determining if the evaluator has done a conscientious job and if the criticism

in our hypothetical example is supported by the information contained in the report.

An important consideration in selecting an evaluator is the orientation or point-of-view that the evaluator brings to his work. Persons with a strong research orientation, for example, might be likely prospects for an evaluation that is primarily summative and affords many opportunities to collect statistical data, however this orientation may present problems if we are mainly interested in a formative evaluation design. Similarly, evaluators who follow a fairly strict behavioral objectives approach may have difficulty working with programs in which outcomes cannot be precisely stated in observable and measurable terms. In short, problems will invariably arise if evaluators and program personnel have different conceptions of what is to be evaluated and how the evaluation should be carried out. The best way to avoid such problems is to draw up a set of specifications that accurately describes each component of a program and the related evaluation questions that program personnel would like to have answered. This information is frequently contained in program proposals and should include:

1. The audiences that will be served by the evaluation
2. The types of decisions for which the evaluation will be used
3. The philosophy underlying the program
4. The types of data that will be available and any conclusions that may be placed on data gathering activity
5. The anticipated outcomes of the program
6. The amount of money available for evaluation
7. A time-line for reporting evaluation findings.

Based on this information, prospective evaluators should submit proposals on a competitive basis and the person whose approach seems most likely to answer the questions should be invited to negotiate an evaluation contract. Because of differences in evaluation situations it is difficult to specify an exact format for proposals; however, the following information should be included in most types of proposals:

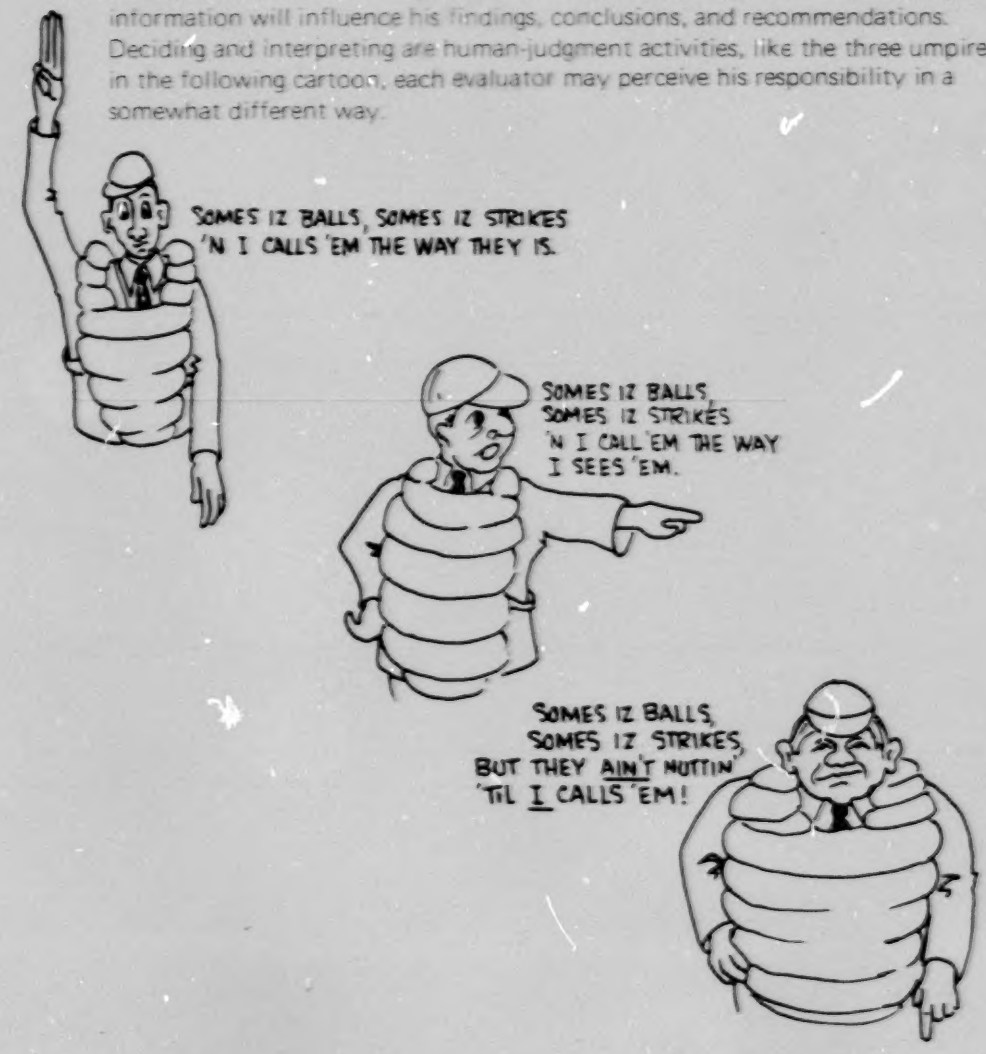
1. The general evaluation design
2. The types of instruments that will be used to evaluate each area of concern and the rationale for selecting or developing instruments
3. The data collection procedures and a time schedule of data collection activities
4. The procedures for analyzing data relative to each instrument and technique
5. The methods for reporting evaluation findings and a time schedule for the submission of interim and final reports.

Many of the problems between evaluators and persons sponsoring evaluations can be avoided if the specific responsibilities of each party are carefully spelled out beforehand. In Appendix E we have presented a sample evaluation contract that attempts to point out areas of responsibility that typically are included in

formal evaluation agreements. Differences in local policies and regulations will do doubt require variations in contracts, but it is a good idea for all agreements to contain a "Statement of Responsibilities" such as the one that is included in Appendix E. It is also a good idea for the agreement to specify the information that the evaluator will be allowed to gather and the areas where restrictions will be placed on his activities.

The evaluation proposal and contract are fequently combined into a single statement that can be used to guide the procedures for an entire evaluation. Together they represent a legal and programmatic document that can serve as a checklist for determining the degree to which the evaluator has fulfilled his responsibilities.

By way of summary, the selection of an evaluator and the agreements that must be reached between the evaluator and sponsor are considerations that can be extremely influential in determining both the type and quality of an evaluation study. There are very few persons writing in the field of evaluation who do not stress the obvious, but often overlooked fact that the types of information the evaluator *decides* to collect and the ways in which he *interprets* information will influence his findings, conclusions, and recommendations. Deciding and interpreting are human-judgment activities, like the three umpires in the following cartoon, each evaluator may perceive his responsibility in a somewhat different way.


SOMES IZ BALLS, SOMES IZ STRIKES 'N I CALLS 'EM THE WAY THEY IS.
SOMES IZ BALLS, SOMES IZ STRIKES 'N I CALL 'EM THE WAY I SEES 'EM.
SOMES IZ BALLS, SOMES IZ STRIKES, BUT THEY AIN'T NUTTIN' 'TIL I CALLS 'EM!

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Index of instruments that measure abilities in the following areas of the Arts: art, dance, drama, films, literature, music and creativity. The following information is provided on each entry: title, author, key words, sources, category and resume (item, scoring, validity, reliability). A taxonomy for each domain is included which classifies instruments according to what they measure and what specific method is used to measure them.

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Review and evaluation of 77 scales measuring variables related to a person's occupation. Scales are grouped into the following categories: general job satisfaction scales; job satisfaction with specific job features; concepts related to job satisfaction; occupational values; leadership styles; other work-relevant attitudes; vocational interest measures and occupational status measures. Other topics included in this volume are: research on work and workers in the U. S.; a summary of survey research evidence on occupational norms and differences in job satisfaction; a review of literature on job attitudes and occupational performance; occupational situs; steps for measuring social mobility and occupational similarity.

Robinson, J. P., & Shaver, P. R. ***Measures of Social Psychological Attitudes.*** Ann Arbor: University of Michigan, Institute of Social Research, 1970.

Listing and evaluation of 106 measures of social attitude variables. The scales that are included were grouped into the following categories: alienation and anomie; authoritarianism, dogmatism and related measures; other socio-political attitudes; values; general attitude toward people; religious attitudes and methodological scales. The criteria for scale construction which were used to evaluate the scales were: (1) item construction criteria, (2) response-set criteria and (3) psychometric criteria.

Shaw, M., & Wright, J. M. ***Scales for the Measurement of Attitudes.*** New York: McGraw-Hill, 1971.

Compilation of scales that measure attitudes toward social practices, social issues and problems, international issues, abstract concepts, political and religious systems, ethnic and national groups, significant others and social institutions. Chapters are included that consider the general nature of attitudes and methods of measurement and evaluation and suggestions for improvement of scales.

Simon, A., & Boyer, E. G. (Eds.) ***Mirrors for Behavior III: An Anthology of Observation Instruments.*** Wyncote, Pennsylvania: Communication Materials Center, 1974.

Compilation of 99 observation instruments, most of which deal with "learning" environments. The systems were grouped into seven major classes: affective, cognitive, psychomotor, activity, content, sociological structure and physical environment. Chapters are included which discuss the technology of observation instruments and present and future applications of observation instruments. Also included is an extensive bibliography which references research reports, user manuals, theoretical papers and reports of training projects.

Test Collection Bulletin. Princeton, New Jersey: Educational Testing Service.

This is a quarterly publication describing standardized tests and other measurement devices. It includes publishers' catalogs, information on testing programs and scoring services, test reviews, reference materials on measurement and evaluation and the address of the publisher or organization where each test can be secured.

Walker, D. K. ***Socioemotional Measures for Preschool and Kindergarten Children.*** San Francisco, California: Jossey-Bass, 1973.

Guide to 143 socioemotional measures available for use with children aged three to six years. The scales are classified into six area: Attitudes; General personality and emotional adjustment; Interests or preferences; Personality or behavior traits; Self-concept; and Social skills or competencies. Descriptions of each measure include: title and date of publication or copyright; author; appropriate age range; measurement technique; sources in which the measure is described; addresses from which the measure can be obtained; a description of the instrument; norms available and validity and reliability evidence.

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APPENDIX A

Sample Instruments: Attitude Assessment

	Title	Source	Page
1.	Student Attitude Toward Independent Study Questionnaire	Independent Study Program Hamden-New Haven, Connecticut	113
2.	Staff Semantic Differential	Georgia, Governor's Honors Program	117
3.	Parent Questionnaire	Project Gifted, Warwick, Rhode Island	121
4.	Mentally Gifted Minor Program	Ocean View School District, Huntington Beach, California	123
5.	Instrument for Teachers	Illinois Gifted Program	125
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SATIS–Q
STUDENT ATTITUDE TOWARD INDEPENDENT STUDY QUESTIONNAIRE

by

Joseph S. Renzulli
Robert K. Gable

Bureau of Educational Research
University of Connecticut

THIS IS NOT A TEST
. . . there are no right or wrong answers . . .

Directions:

On your *answer sheet* please record the following information in the blank spaces:

1. Your school in the space marked "School"
2. Your grade in the space marked "Grade"
3. Number of years in the ISP in the space marked "Test"
4. Subject areas you have studied in the space marked "Instructor"

DO NOT WRITE YOUR NAME ON THE QUESTIONNAIRE OR THE ANSWER SHEET. NO ATTEMPT WILL BE MADE TO IDENTIFY PERSONS COMPLETING QUESTIONNAIRES.

Following is a list of factors which are important in the effective operation of the Independent Study Program (ISP). Please rate the program on each of the factors by darkening the appropriate space on your separate answer sheet. Use what you would consider to be the ideal program as a standard of excellence in making your ratings. Keep in mind that there are no right or wrong answers to any of these questions. Your honest opinion about each factor will be the best answer.

If the program is EXTREMELY POOR with respect to the factor darken space A on your answer sheet.

If the program is BELOW AVERAGE with respect to the factor darken space B on your answer sheet.

If the program is BELOW AVERAGE with respect to the factor darken space C on your answer sheet.

If the program is ABOVE AVERAGE with respect to the factor darken space D on your answer sheet.

If the program is EXCELLENT with respect to the factor darken space E on your answer sheet.

Prepared for the Independent Study Program for Gifted Students, Hamden-New Haven Cooperative Education Center, 1450 Whitney Ave., Hamden, Connecticut 06517.

A = Extremely Poor
B = Below Average
C = Acceptable
D = Above Average
E = Excellent

1. Extent to which the ISP has influenced you to attend college.
2. Extent to which your ISP studies have influenced the area that you would like to major in if you go to college.
3. Extent to which your ISP studies have influenced your career choice.
4. Extent to which ISP has helped you develop skills in decision making.
5. Extent to which ISP has helped you in making choices.
6. Extent to which ISP has helped you to develop a sense of control over your future.
7. Extent to which ISP has made you more excited about learning.
8. Extent to which ISP has increased your motivation to learn.
9. Extent to which ISP has helped you to become a better evaluator of your own work.
10. Suitability of the method by which students are selected for the program.
11. Opportunity to select topics for study which are of interest to *you*.
12. Opportunity to pursue topics to the extent that you desire.
13. Degree to which the objectives of the program were in agreement with your personal objectives.
14. Effect of the ISP on your study habits.
15. Extent to which ISP has helped you to think critically.
16. Extent to which ISP has helped you to organize your thoughts.
17. Extent to which ISP has helped you to focus your thoughts.
18. Extent to which the ISP has helped you to become acquainted with own thinking, working, and learning styles.
19. Appropriateness of the way the ISP is organized.
20. Extent to which ISP has helped you to develop more individual responsibility.
21. Your overall rating of the ISP in terms of fulfilling your immediate educational needs.
22. Extent to which you have mastered your objectives as a result of being in ISP.
23. Degree to which you are challenged by ISP.
24. Opportunity for interaction with your ISP teachers.
25. Opportunities to meet with consultants or experts in the field(s) in which you are studying.
26. Opportunities for you to express your ideas and feelings.
27. Extent to which ISP has helped you to develop your self-confidence.

Answer questions 28 through 39 by:

> Darkening space A if you think the ISP is the best answer.
>
> Darkening space B if you think the regular school program is the best answer.
>
> Darkening space C if there is no difference between the ISP and your regular school program.

28. Which holds you more responsible for work?
29. In which do you try out ideas more?
30. In which do you use your time to best advantage?
31. In which do you express more creativity?
32. Which provides better teachers with highest ability?
33. In which do teachers take the greatest personal interest in you?
34. In which are teachers more enthusiastic about their subjects?
35. In which do you put forth the greatest effort?
36. Which challenges you the most?
37. Which do you think is more effective in preparing you for courses that will follow the course(s) you are now taking in ISP?
38. Which do you think is more effective in preparing you for *acceptance* into college?
39. Which do you think is more effective in preparing you for *the work that you will do* in college?

Governor's Honors Program

STAFF SEMANTIC DIFFERENTIAL

Birthdate: _____
Month Date Year

Number of years Teaching experience: _____

Check your teaching or specialization area.

___ 01. Art
___ 02. Drama
___ 03. English
___ 04. Foreign Language
___ 05. Mathematics
___ 06. Music
___ 07. Science
___ 08. Social Science
___ 09. Physical Education
___ 10. Counseling
___ 11. Other (specify) _____

Date: _____

The purpose of this activity is to measure the meanings of certain concepts related to the Governor's Honors Program by asking you to judge them against a series of descriptive scales. On each page you will find a different concept in parenthesis to be judged and beneath it a set of scales. You are to rate each concept on each of these scales.

Here is how you are to use the scales:

If you feel a particular concept is *very much* like one end of the scale, you should place your check mark as follows:

	1	2	3	4	5	6	7	
PLEASANT	X	___	___	___	___	___	___	:UNPLEASANT

or

	1	2	3	4	5	6	7	
PLEASANT	___	___	___	___	___	___	X	:UNPLEASANT

If you feel a particular concept is quite closely like one or the other end of the scale (but not extremely), you should place your check mark as follows:

	1	2	3	4	5	6	7	
RUGGED	___	X	___	___	___	___	___	:DELICATE

or

	1	2	3	4	5	6	7	
RUGGED	___	___	___	___	___	X	___	:DELICATE

From: Payne, D. A. *Evaluation of the State of Georgia's Governor's Honors Program.* Athens: University of Georgia, 1972.

If you feel a particular concept is *only slightly* like one side as opposed to the other side (but is not really neutral), then you should check as follows:

SHARP	___	___	X	___	___	___	___	:DULL
	1	2	3	4	5	6	7	

or

SHARP	___	___	___	___	X	___	___	:DULL
	1	2	3	4	5	6	7	

If you consider the concept to be neutral on the sacle (both sides of the scale equally associated with the concept) or if the scale is completely irrelevant (unrelated to the concept), then you should place your check mark in the middle space:

HAPPY	___	___	___	X	___	___	___	:SAD
	1	2	3	4	5	6	7	

The direction toward which you check, of course, depends upon which of the two ends of the scale best describes your feeling about each concept.

Do not worry or puzzle over any one scale. It is your first impression, your immediate feeling about each concept that we want. On the other hand, please do not be careless, because we want your true impressions. Do not try to remember how you checked similar items earlier in the scale. MAKE EACH ITEM A SEPARATE AND INDEPENDENT JUDGMENT.

Remember, you are judging the concept as you see it—not what we think or what others think.

IMPORTANT: (1) Place your check marks in the middle of the spaces, not on the boundaries:

	this		not this
___ : ___ :	X	: ___ : : ___ :	___X___ :

(2) BE SURE TO CHECK EVERY SCALE; DO NOT OMIT ANY.

(3) NEVER PUT MORE THAN ONE CHECK MARK ON A SINGLE SCALE.

(INDEPENDENT STUDY)

LARGE	___	___	___	___	___	___	___	:SMALL
	1	2	3	4	5	6	7	
UNPLEASANT	___	___	___	___	___	___	___	:PLEASANT
	1	2	3	4	5	6	7	
FAST	___	___	___	___	___	___	___	:SLOW
	1	2	3	4	5	6	7	
DULL	___	___	___	___	___	___	___	:SHARP
	1	2	3	4	5	6	7	
THIN	___	___	___	___	___	___	___	:THICK
	1	2	3	4	5	6	7	
HAPPY	___	___	___	___	___	___	___	:SAD
	1	2	3	4	5	6	7	
WEAK	___	___	___	___	___	___	___	:STRONG
	1	2	3	4	5	6	7	
GOOD	___	___	___	___	___	___	___	:BAD
	1	2	3	4	5	6	7	
MOVING	___	___	___	___	___	___	___	:STILL
	1	2	3	4	5	6	7	
UNFAIR	___	___	___	___	___	___	___	:FAIR
	1	2	3	4	5	6	7	
PASSIVE	___	___	___	___	___	___	___	:ACTIVE
	1	2	3	4	5	6	7	
HEAVY	___	___	___	___	___	___	___	:LIGHT
	1	2	3	4	5	6	7	

This scale was also used to measure the following concepts: Learning, Governor's Honors Program, Governor's Honors Program Seminars, Academically Talented Student, Artistically Talented Student, Dormitory Living, Audio-Visual Materials, Teachers, and Testbooks.

Students filled out an idential set of scales.

PROJECT GIFTED—WARWICK

1972-1973

Parent Questionnaire

Directions: Please do not sign your name to this questionnaire. No attempt will be made to identify persons completing these forms. Please return the questionnaire in the enclosed envelope within the next two or three days.

You can help to make Project Gifted a better program by giving careful thought to each of the questions that follow. Because of the relatively small number of persons involved in the project, each person's opinions will weigh heavily in analyzing the results. We appreciate your cooperation and assistance in helping us to evaluate Project Gifted.

	Yes	No
1. Have you been provided with enough information about why your child was selected for Project Gifted?	____	____
2. Have you been provided with enough information about the objectives of Project Gifted?	____	____
3. Have you been provided with enough information about the activities and experiences that your child pursues in Project Gifted?	____	____
4. Have you been invited to visit the Project Gifted classroom?	____	____
5. Have you been offered sufficient opportunity to discuss your child's progress with the teacher?	____	____

6. Which of the following comments best expresses your child's general attitude about being in Project Gifted?

Enthusiastic ____
Positive ____
Indifferent ____
Negative ____

7. Has your child expressed pleasure or enjoyment about the work that he or she does in Project Gifted? (check one)

Often ____
Sometimes ____
Seldom ____
Never ____

8. Which of the following statements best expresses your child's attitude toward the degree of challenge of the work in Project Gifted?

Very challenging ____
Somewhat challenging ____
Not at all challenging ____
No answer ____

From: Renzulli, J. S. *An Evaluation of Project Gifted.* Storrs: The University of Connecticut, 1973.

		Yes	No
9.	Has your child encountered any problems with his friends as a result of being involved in Project Gifted? If yes, please describe.	___	___
10.	Do you think that the name "Project Gifted" calls unnecessary attention to the children participating in the program?	___	___
11.	Have your or your child encountered any problems as a result of being transported to another school? If yes, please describe.	___	___
12.	Has your child expressed a concern about missing work in the regular class or making-up assignments because he is out of the room to attend Project Gifted?	___	___
13.	Has your child's regular classroom teacher(s) expressed any displeasure because your child has missed work because he or she is attenting Project Gifted? If yes, please describe.	___	___
14.	If your child is invited to participate in Project Gifted next year, will you encourage him to do so? If no, tell why.	___	___
15.	Can you identify any changes in your child's behavior or attitude toward school or education which seem to result from his or her participation in Project Gifted? If yes, please describe.	___	___
16.	Do you have any specific suggestions for changes in the operation of Project Gifted or the way it affects children or their parents?	___	___

Number of years your child has been in Project Gifted _____.

PLEASE RETURN TO PUPIL PERSONNEL
SERVICES BY *FRIDAY, APRIL 19*

OCEAN VIEW SCHOOL DISTRICT
MENTALLY GIFTED MINOR (MGM) PROGRAM

Check One (1)

NEIGHBORHOOD SCHOOL ___ **ROBINWOOD** ___ **RANCHO VIEW** ___

	Agree 1	2	Neutral 3	4	Disagree 5
1. I am (we are) satisfied with the overall MGM program now being offered my youngster.					
2. The school adequately keeps us informed regarding MGM activities my youngster(s) is/are involved.					

3. What form of communication would be most effective? *Check One (1)*

____ (a) A Newsletter
____ (b) Regularly scheduled parent-teacher conference
____ (c) Individual, situational parent-teacher letter(s)
____ (d) Situational telephone conferences
____ (e) Scheduled, quarterly MGM parent meetings (evenings)

4. In a questionnaire sent to MGM parents last year, the following goal statements were selected in the following descending order by parents of MGM students. Would you please rank order the five (5) most important goal statements according to your perceptions.

Please select the top *five (5)* goal statements as you see them relating to MGM students. Use 1 for your top priority, 2 for your second choice, etc.

		GOALS
____	a. Learning Skills:	To develop a positive attitude toward learning and a process for systematic problem solving.
____	b. Self-image:	To build a positive, realistic self-image in order to accept the rewards of success and the consequences of failure.
____	c. Self-realization:	To recognize one's self-worth and develop an awareness of one's potential contribution to society.
____	d. Reading:	To develop the skills of reading to the best of one's ability in order to enjoy the benefits of reading.

From: Ocean View School District, Huntington Beach, California.

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		GOALS
____ e.	Ecology:	To respect, conserve, and enjoy nature's contributions to our ways of life.
____ f.	Citizenship:	To be a responsible, participating member of society.
____ g.	Physical Health:	To develop and maintain a healthy body.
____ h.	Communication Skills:	To listen carefully and express oneself effectively through written and oral language.
____ i.	Moral and Spiritual Values:	To develop a sense of honesty and fairness wih respect toward other people.
____ j.	Mathematics Skills:	To develop competency in math skills to the best of one's ability and apply them to everyday life.
____ k.	Social Values:	To adjust easily to social relationships and be tolerant of the opinons and actions of others.
____ l.	Vocational Competency:	To value the personal and material rewards gained from a well chosen vocation.
____ m.	Science Skills:	To appreciate the value of scientific discoveries and apply scientific skills to everyday life.
____ n.	Fine Arts:	To express, develop, and appreciate artistic talent (painting, music, dance, sculpture, etc.)
____ o.	Social Studies:	To understand the consequences of history on the past and present peoples of the world.
____ p.	Use of Leisure Time:	To develop the skills necessary to enjoy a balance between relaxation and productive leisure time activities.

5. In a questionnaire sent home to MGM parents last year, the following represent the ten (10) most frequently cited MGM highlights that MGM youngsters shared unsolicited with their parents. Would you choose the apparent favorite MGM activity your child shared with you this year?

____ a.	A particular field trip	____ f.	A study of countries
____ b.	A science activity	____ g.	An arts and crafts project
____ c.	An oceanography activity	____ h.	His/her reading program
____ d.	An outside speaker	____ i.	A creative writing project
____ e.	A play	____ j.	Photography/film making

____ k. (other) _____

For those of you who are inclined, please add any constructive comments that will assist the district to meet your expectations regarding MGM and your child(ren).

INSTRUMENT FOR TEACHERS

We suggest you read through the questionnaire before answering any items.

Part I

Please indicate the extent to which you agree or disagree with each of the following statements by circling the appropriate letter. The letters mean the following:

SA – Strongly agree
A – Generally agree
U – Undecided or neutral
D – Generally disagree
SD – Strongly disagree

Please use the comment line if you want to explain your answer.

1.	I feel this school does a good job with the able students.	SA	A 4	U	D	SD
Comment	_____					
	_____					
2.	The teaching situation in this school is a favorable one.	SA 3	A 1	U	D	SD
Comment	_____					
	_____					
3.	This school provides a well-balanced educational program.	SA 3	A	U 1	D	SD
Comment	_____					
	_____					
4.	The community is very supportive of our school program.	SA 1	A 2	U 1	D	SD
Comment	_____					
	_____					
5.	Students in the gifted classes spend too much much time on those classes at the expense of other classes.	SA	A	U	D 4	SD
Comment	_____					
	_____					
6.	Many students not in the gifted program resent the program.	SA 1	A	U 1	D 1	SD 1
Comment	_____					
	_____					

From: Sjogren, D., Hopkins, T., & Gooler, D. *Evaluation Plans and Instruments: Illustrative Cases of Gifted Program Evaluation Techniques.* Center for Instructional Research and Curriculum Evaluation. Urbana-Champaign: University of Illinois.

		SA	A	U	D	SD
7.	I think more students should be in the program than at present.	1			2	1

Comment _____

_____

		SA	A	U	D	SD
8.	Generally the students in the gifted program are the ones who should be in it.	1	2		1	

Comment _____

_____

		SA	A	U	D	SD
9.	I feel I am well-trained for teaching a gifted class.			3		1

Comment _____

_____

		SA	A	U	D	SD
10.	I feel the gifted program is meeting its objectives quite well for the students who are in it.	1	2	1		

Comment _____

_____

		SA	A	U	D	SD
11.	I am concerned that I spend too much time preparing for and working with the gifted.			1	3	

Comment _____

_____

		SA	A	U	D	SD
12.	I have adequate materials and equipment to teach as I want to teach.		2	2		

Comment _____

_____

Part II

1. Suppose this school were to have a windfall of money. How would you recommend the money be spent? Please indicate by ranking the following programs in terms of which have need for more materials, staff, etc. The program may or may not exist in your school now. Give a rank of one to the program that you consider most important, a rank of two to the next most important, and so on until you have ranked all.

   4 Vocational or pre-vocational program (shop, home ec., etc.)

   1 Academic programs

   8 Extra-curricular activities

   2 Gifted program

   7 Pupil personnel services (includes guidance, health services, etc.)

   5 Program for low-achieving students

   6 Administrative support (includes clerical support)

   3 Library

   ____ Other (please specify) Resource Center

   _____

2. Now let's think the other way. Suppose the budget of your school were to be cut. How would you recommend the cuts be made? Please indicate by ranking the following programs in terms of their expendability from your point of view. Give a rank of one to the program that you feel should be cut or reduced first, a rank of two to the next that could be cut or reduced, and so on until you have ranked all.

   6 Library

   6 Academic programs

   1 Extra-curricular activities

   4 Gifted program

   2 Pupil personnel services

   6 Lunch program

   3 Administrative support

   ____ Other (please specify) _____

   _____

Part III

1. Write a brief description of the eighth grade classes that you teach this year. Indicate the topics covered and the kinds of activities that have been carried out.

2. Indicate the ways your teaching of the gifted class differs from the other class with respect to the following:

   a. Objectives.

   b. Topics studied

   c. Techniques used

3. From your experience with classes of gifted students, what skills and attitudes seem to be most important for an instructor to have?

4. Describe any teaching situations in your gifted class this year where you felt especially pleased with the results.

5. What anecdotal evidence do you have of the impact of the gifted program? (Observed changes in students, testimonials by students, parents, etc.)

PARENT QUESTIONNAIRE

We suggest you read through the questionnaire before you start to answer. Respond in terms of your oldest or only child now in School D.

I. **Who completed the questionniare? (check one)**

____ Father (or male guardian) only

____ Mother (or female guardian) only

____ Both parents

____ Other _____

II. **Please indicate the extent to which you agree or disagree with each of the following statements by circling the appropriate letter. The letters mean the following:**

SA – Strongly agree
A – Generally agree
U – Undecided or neutral
D – Generally disagree
SD – Strongly disagree

Please use the coment line if you want to explain your answer.

1. School D provides a well-balanced educational program.	SA 2	A 9	U	D	SD

Comment _____

_____

2. This school has a good program for the able students.	SA 3	A 7	U	D 1	SD

Comment _____

_____

3. Most of the teachers our child has had at School D have done a good job.	SA 1	A 10	U	D	SD

Comment _____

_____

4. Most parents feel School D is a good school.	SA 1	A 8	U 2	D	SD

Comment _____

_____

5. Our child seems to like this school. (As well as any child likes school.)	SA 4	A 7	U	D	SD

Comment _____

_____

From: Sjogren, D., Hopkins, T., & Gooler, D. *Evaluation Plans and Instruments: Illustrative Cases of Gifted Program Evaluation Techniques.* Center for Instructional Research and Curriculum Evaluation. Urbana-Champaign: University of Illinois.

		SA	A	U	D	SD
6.	Students at School D are receiving a good education in the basics like math, English, history, and science.	2	9			

Comment _____

_____

		SA	A	U	D	SD
7.	There are too many frills in the School D program.		1	2	8	

Comment _____

_____

		SA	A	U	D	SD
8.	School D has a good extra-curricular program, i.e., athletics, music, school paper, drama, clubs, etc.	1	9	1		

Comments _____

_____

		SA	A	U	D	SD
9.	School D should have more vocational-type courses.		3	2	4	2

Comment _____

_____

III What do you regard as the strengths (the best things) of School D?

_____

_____

_____

_____

IV. What suggestions do you have for further strengthening the school? (Things that might be added, increased, dropped, etc.)

_____

_____

_____

_____

V. Please answer each of the following questions about classes your child is now taking in the following subject areas: math, science, social studies, language arts.

1a. Which class does your child like the best? _____

1b. Which class does your child like the least? _____

2a. In which class is your child learning the most? _____

2b. In which class is your child learning the least? _____

3a. On which class does your child work the hardest? _____

3b. On which class does your child work the least? _____

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VI. Is your child in a special program in the school? ( ) yes
( ) no

VII. (If yes to VI) What is the program and what is your opinon of it?

_____

_____

_____

_____

VIII. (If no to VI) What special program would you like to see provided that your child could be in?

_____

_____

_____

_____

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STUDENT QUESTIONNAIRE

Part I

Check the extent to which you agree or disagree with the following statements by circling the appropriate letter. The letters mean the following:

SA – Strongly agree
A – Generally agree
U – Undecided or neutral
D – Generally disagree
SD – Strongly disagree

Use the comment line if you want to explain your answer.

	SA	A	U	D	SD	
1. Most days I enjoy school						
Comment _____	6	4	0	0	00	Gifted
	2	10	1	1	1	Regular
_____						
2. I like the way our classes are run in separate sections.	SA	A	U	D	SD	
	7	2	1	1	0	Gifted
Comment _____	4	5	3	1	[illegible]	Regular
_____						
3. I am learning a lot in school this year.	SA	A	U	D	SD	
	4	7	0	0	0	Gifted
Comment _____	3	9	3	0	0	Regular
_____						
4. Most of the kids in this school are friendly with each other.	SA	A	U	D	SD	
	6	3	2	0	0	Gifted
Comment _____	8	4	1	1	11	Regular
_____						
5. I think school is hard this year.	SA	A	U	D	SD	
Comment _____	0	2	3	5	1	Gifted
	1	2	3	5	4	Regular
_____						
6. My parents are satisfied with my school work this year.	SA	A	U	D	SD	
	2	6	2	1	0	Gifted
Comment _____	3	6	3	1	2	Regular
_____						
7. I don't have time to participate in as many things as I would like.	SA	A	U	D	SD	
	1	2	1	5	2	Gifted
Comment _____	3	2	3	2	5	Regular
_____						
_____						

From: Sjogren, D., Hopkins, T., Gooler, D. *Evaluation Plans and Instruments: Illustrative Cases of Gifted Program Evaluation Techniques:* Center for Instructional Research and Curriculum Evaluation. Urbana-Champaign: University of Illinois.

9. I wish I could be in some of the other classes or sections.	SA	A	U	D	SD	
	1	1	3	4	2	Gifted
Comment _____	3	4	1	4	3	Regular
10. A lot of the stuff we study in school isn't very important.	SA	A	U	D	SD	
	0	0	3	4	4	Gifted
Comment _____	1	2	3	5	4	Regular

Part III

1. In what ways has your school work been different this year from other years?

2. What three things do you like best about school?

3. What three things do you like least about school?

4. What would you like to have in this school that you don't have now?

School E
Form Four

SCHOOL BOARD QUESTIONNAIRE

We suggest you read the questionnaire before you start to answer.

I. **Please indicate the extent to which you agree or disagree with each of the following statements by circling the appropriate letter. The letters mean the following:**

SA — Strongly agree
A — Generally agree
U — Undecided
D — Generally disagree
SD — Strongly disagree

Please use the comment line if you want to explain your answer. Answer questions 9 and 10 only if you have children in the high school.

1. School E High School provides a well-balanced educational program. SA A U D SD
   Comment _____
2. This school has a good program for the able students. SA A U D SD
   Comment _____
3. Most parents feel School E is a good school. SA A U D SD
   Comment _____
4. The School E program is mainly for the college bound student. SA A U D SD
   Comment _____
5. Students at School E are receiving a good education in the basics like math, English, history, science. SA A U D SD
   Comment _____
6. There are too many frills in the School E program. SA A U D SD
   Comment _____
7. School E has a good extra-curricular program, i.e., athletics, music, school paper, drama, clubs, etc. SA A U D SD
   Comment _____
8. School E should have more vocational courses. SA A U D SD
   Comment _____
9. Most of the teachers our child has had at School E have done a good job. SA A U D SD
   Comment _____

From: Sjogren, D., Hopkins, T., & Gooler, D. *Evaluation Plans and Instruments: Illustrative Cases of Gifted Program Evaluation Techniques.* Center for Instructional Research and Curriculum Evaluation. Urbana-Champaign: University of Illinois.

10. Our child seems to like this school. SA A U D SD
(as well as any teenager likes school.)

Comment _____

II. **What do you regard as the strengths (the best things) of School E?**

_____

_____

_____

_____

_____

III. **What suggestions do you have for further strengthing the school? (Things that might be added, increased, dropped, etc.)**

_____

_____

_____

_____

_____

IV. **Suppose this school were to have a windfall of money. How would you recommend the money be spent? Please indicate by ranking the following programs in terms of which have need for more materials, staff, etc. The programs may or may not exist in your school now. Give a rank of one to the program that you consider most important, a rank of two to the next most important, and so on until you have ranked all.**

Rank

____ Vocational program
____ Academic programs
____ Extra-curricular activities
____ Gifted program
____ Pupil personnel services (includes guidance, health services, etc.)
____ Program for low-achieving students
____ Administrative support (includes clerical support)
____ Other (please specify) _____

V. **Now let's think the other way. Suppose the budget of your school were to be cut. How would you recommend the cuts be made? Please indicate by ranking the following programs in terms of their expendability from your point of view. Give a rank of one to the program that you feel should be cut or reduced first, a rank of two to the next that could be cut or reduced, and so on until you have ranked all.**

Rank

____ Vocational program
____ Academic programs
____ Extra-curricular activities
____ Gifted program
____ Pupil personnel services
____ Lunch program
____ Administrative support
____ Other (please specify) _____

APPENDIX B

Sample Non-Test Instruments for Assessing Student Performance

	Title	Source	Page
1.	Evaluation Scale for Visual Arts	Project Gifted, Warwick, Rhode Island	139
2.	Evaluation Scale for Creative Writing	Project Gifted, Warwick, Rhode Island	141
3.	Parent Evaluation of Pupil	California Gifted Program	143
4.	Teacher Evaluation of Pupil	California Gifted Program	145
5.	Pupil Self-Evaluation	California Gifted Program	147
6.	Student Evaluation	Learning Center Program, Hillsborough County, Florida	149
7.	Student Evaluation Scale	Model Intermediate Enrichment Program, Great Falls, Montana	151
8.	Self-Esteem Inventory	Great Falls Public Schools, Great Falls, Montana	157
9.	Parent Evaluation of Pupil (Elementary)	State Program for Mentally Gifted Minors, Coronado, California	159
10.	Student Evaluation Scale (Elementary)	State Program for Mentally Gifted Minors, Coronado, California	161
11.	Teacher's Evaluation Form	State Program for Mentally Gifted Minors, Coronado, California	163

WARWICK PUBLIC SCHOOLS
WARWICK, RHODE ISLAND

PROJECT GIFTED

Evaluation Scale for Visual Arts

Code No._____ Age_____ Boy/Girl_____ TOTAL SCORE_____

Evaluator_____ Position_____ Date_____

Elements	Low		Moderate		High	
	1	2	3	4	5	6
I. Creative Expression, Imagination, Uniqueness						
II. Flexibility, Appreciation and Adaptability to Various Media						
III. Fluency Variety of Number of Ideas						
IV. Sensitivity-Composition-Design						
V. Manipulative Skills Construction-Weaving, etc.						
VI. Growth						
Column Total						
Weight	1	2	3	4	5	6
Weighted Column Total						
			TOTAL SCORE			

From: Renzulli, J.S. *An Evaluation of Project Gifted.* Storrs, University of Connecticut, 1973.

WARWICK PUBLIC SCHOOLS
WARWICK, RHODE ISLAND

PROJECT GIFTED

Evaluation Scale for Creative Writing

Code No. _____ Age _____ Boy/Girl _____ TOTAL SCORE _____

Evaluator _____ Position _____ Date _____

	Low		Moderate		High	
	1	2	3	4	5	6
I. Organization Unity, development, clarity						
II. Mechanics Structure, grammer, usage Skills: spelling, punctuation						
III. Originality Creative fluence, emotional quality, Imagination, style, theme						
IV. Unusual/Other Elements Dialogue, special format mood/ setting, character development						
V. Growth						
Column Total						
Weight	1	2	3	4	5	6
Weighted Column Total						
	TOTAL SCORE					

From: Renzulli, J. S. *An Evaluation of Project Gifted.* Storrs, University of Connecticut, 1973.

PARENT EVALUATION OF PUPIL

Dear Parents:

We need to impose upon you for a final time to get your reaction to your child's experiences as a participant in the State Study. It is highly important to us to have your evaluation of the program's effectivenes..

We shall appreciate it very much if you will fill out the attached page and return it as soon as possible to

_____

_____

_____

Thank you very much.

PARENT EVALUATION OF PUPIL

Pupil's Name _____

Will you please think of your child at the present time in comparison to last year. As a result of his participation in the State Study, please rate him on the following items. Place the letters a, b, c, d, and e on the line following each item according to the scale below. You may have difficulty in responding to some of the items. Please make the best estimate that you can.

(a) Much less (b) Less (c) About the same (d) More (e) Much more

1. Ability to think things through for himself . . . . . ____
2. Knowledge of subject matter areas (science, social studies, and others he has taken) . . . . . ____
3. Interest in school . . . . . ____
4. Ability to see relationships . . . . . ____
5. Ability to find information . . . . . ____
6. Ability to work well by himself . . . . . ____
7. The liking and respect of other pupils for him . . . . . ____
8. Ability to judge the usefulness of facts . . . . . ____
9. Ability to get along well with his teacher(s) . . . . . ____
10. Enjoyment of learning . . . . . ____
11. Knowledge of arithmetic, spelling, and other basic skills . . . . ____
12. Curiosity about learning new things . . . . . ____
13. Ability to accept responsibility . . . . . ____
14. Opportunity to make things, experiment, and use ideas . . . . ____
15. Knowledge of his strengths and weaknesses . . . . . ____
16. Willingness to do work as a leader . . . . . ____

From: Simpson, R. E., & Martinson, R. A. *Educational Program for Gifted Pupils.* Sacramento, California: California State Department of Education, 1961.

Please answer the questions that follow

17. Has participation in the study helped him or her? (Yes or no) _____
Please explain.

_____

_____

18. Has participation created problems for him or her? (Yes or no) _____
Please explain.

_____

_____

19. Would you like to have the program continued? (Yes or no) _____
Please explain.

_____

_____

20. What changes, if any, would you suggest?

_____

_____

_____

_____

Name _____

Address _____

Telephone _____

TEACHER EVALUATION OF PUPIL

Pupil	Teacher	Date

Please evaluate this pupil by placing the letter a, b, c, d, e on the line following each item according to the scale below. Think of him in relation to his performance at the start of the program.

(a) Marked loss
(b) Diminishing
(c) About the same
(d) Increasing
(e) Marked increase

1. Ability to solve problems . . . . . ____
2. Knowledge of subject matter areas . . . . . ____
3. Interest in school . . . . . ____
4. Ability to think in terms of the whole and to see parts in relation to the whole . . . . . ____
5. Research skills . . . . . ____
6. Ability to work independently . . . . . ____
7. Status in peer group . . . . . ____
8. Critical thinking ability . . . . . ____
9. Rapport with teacher . . . . . ____
10. Motivation toward learning . . . . . ____
11. Knowledge of basic skills (fundamentals) . . . . . ____
12. Intellectual curiosity . . . . . ____
13. Ability to accept responsibility . . . . . ____
14. Opportunity to create and experiment with ideas and things . . ____
15. Self-understanding . . . . . ____
16. Acceptance of leadership roles . . . . . ____

From: Simpson, R. E., & Martinson, R. A. *Educational Program for Gifted Pupils.* Sacramento, California: California State Department of Education, 1961.

PUPIL SELF–EVALUATION

Pupil's Name _____

Will you please think of yourself at the present time in comparison to last year. As a result of *this year's* work, please rate yourself on the following items. Place the letters *a, b, c, d,* and *e* on the line following each item according to the scale below.

(a) Much less (b) Less (c) About the same (d) More (e) Much more

1. Ability to think things through for yourself . . . . . ____
2. Knowledge of subject matter areas (science, social studies, and others I have taken) . . . . . ____
3. Interest in school . . . . . ____
4. Ability to see how things go together in a situation (see relationships) ____
5. Ability to find information . . . . . ____
6. Ability to work well by myself . . . . . ____
7. The liking and respect of other pupils for me . . . . . ____
8. Ability to judge the usefulness of facts . . . . . ____
9. Ability to get along with my teacher(s) . . . . . ____
10. Enjoyment of learning . . . . . ____
11. Knowledge of arithmetic, spelling and other basic skills . . . . . ____
12. Curiosity about learning new things . . . . . ____
13. Ability to accept responsibility . . . . . ____
14. Opportunity to make things, experiment, and use ideas . . . . . ____
15. Knowledge of my strengths and weaknesses . . . . . ____
16. Willingness to do work as a leader . . . . . ____

Please answer the questions that follow:

17. Has the school year been helpful to you? Yes____ No____
    Please explain.

    _____

    _____

18. Has any part of the school work this year created any problems for you? Yes____ No____
    Please explain.

    _____

    _____

From: Simpson, R. E., & Martinson, R. A. *Educational Program for Gifted Pupils.* Sacramento, California: California State Department of Education, 1961.

19. Would you like to continue in a group like the one you had this year? Yes____ No____

_____

_____

20. What changes, if any would you suggest?

_____

_____

_____

_____

_____

STUDENT EVALUATION
LEARNING CENTER PROGRAM

For the past sixteen weeks you have been attending sessions at the Hillsborough County Learning Center. We would like to know some of your feelings about the program. By answering questions and completing the following sentences, you can help us in improving the program.

1. Which class did you like best?_____
2. Why?_____
3. Of the classes I was not in, I wish I could have taken_____
4. Why?_____
5. I wish my classes at the Learning Center were longer, ____shorter,____, the same_____(check one)
6. The Learning Center needs more_____
7. The class in which I learned or accomplished most was_____
8. If I could change three things about the Learning Center, I would
   a._____
   b._____
   c._____
9. Has the Learning Center helped you in any way with things you do at school?_____
10. How?_____
11. Has the Learning Center helped you in any way with things you do at home?_____
12. How?_____
13. Has the Learning Center helped in any way with the way you get along with or feel about people?_____. If so, how?_____
    _____

From: *Florida's State Resource Manual for Gifted Child Education.* State of Florida Department of Education, 1973.

–INSTRUCTIONS FOR USE OF STUDENT EVALUATION SCALE–

Model Intermediate Enrichment Center

INTRODUCTION

The student evaluation scale is for rating student personality traits which may be associated with academic success. This scale was originally designed by August Dvorak, Carroll Mjelde, and Alden Nickelson at the University of Washington. It was field tested in the public schools and rigorously designed for high reliability, provided the rater takes time to read the directions and follows them.

PURPOSE

The major purpose of this scale is to experimentally evaluate the non-intellectual traits which may be associated with academic success in the primary grades. This scale is adapted for statistical treatment of its data.

DIRECTIONS FOR USE OF THE SCALE

1. Take a few minutes before beginning the rating procedure and familiarize yourself with the "traits" and their definitions.
2. Note that space is provided for indicating that particular "traits" have not been observed for a given student.
3. It is suggested that the rater evaluate *all* students for a particular "trait" before going on to the next trait.
4. Note that there is a "high" and "low" rating for each set of cues on the scale.
5. Fill in the blanks at the top of each rating scale.

SOME COMMON RATING ERRORS

Error of Central Tendency – Many teachers hesitate to give either extremely high or extremely low ratings. They tend to group their ratings close to the center of the scale. This error occurs most commonly with inexperienced raters.

Logical Error – There is a tendency for evaluators to give similar ratings to qualities which seem to be related logically such as speaking ability and writing ability. The scale you will be using has been designed to reduce Logical Error to a minimum by selecting and defining the "traits" as discrete qualities.

Halo Effect – Evaluators are sometimes unable to prevent their rating of one quality or "trait" from being influenced by other knowledge about the individual. As a result, the rating is shifted in the direction of a general impression. Halo may affect the rating of one quality, a number of qualities or "traits", or the over-all rating.

Error of Personal Bias – This error, common to all human beings, enters into their evaluation of others. It is a human propensity to perceive and evaluate others on the basis of personal criteria and reference points. The Error of Personal Bias may be favorable or unfavorable to the individual being rated depending largely on the bias of the rater.

From: Great Falls Public Schools, Great Falls, Montana.

Error of Standards – Some evaluators tend to overrate or underrate everyone as compared with the average of other evaluators. They do this because of differences in their marking standards. Since each evaluator can use only his own standards, there is the possibility that there will be as many different standards as evaluators. However, through the use of a uniform rating scale in which the "traits" are clearly defined and cues are discrete and concise, the effects of Error of Standards can be eliminated or greatly reduced.

DEFINITIONS

The following are elaborations of what the authors conceived, and teachers are asked to accept, to be the various traits:

Trait No. 1 – *ALERTNESS* – The mental wakefulness and organization which makes individuals sensitive to the significance of what they feel, smell, taste, hear, and see. It is opposite of being unconscious or semiconcious of what goes on, or is to go on, about them.

Trait No. 2 – *AMBITION* – The eager, determined, all-pervasive desire for personal advancement, acquisition of knowledge, honors, superior achievement, and eventual accomplishment of formulated, high, purposeful goals demonstrated by planning and industrious effort. Ambition is not effortless daydreaming, but rather is a controlling drive pursued with eager, purposeful determination in and outside the classroom.

Trait No. 3 – *APPEARANCE AND BEARING* – The individual characteristics which create positive or negative impressions about individuals as they walk, stand, or say "Good Morning." This trait involves only: (1) the students' cleanliness, finger nails, hair cutting, combing, (2) his dress (appropriateness, cleanliness, pressing, manner of wearing, shoe condition, etc.). A painter whose coveralls are paint spotted and patched, but clean and ironed or pressed is well dressed, a girl with a sable stole dragging or imappropriately worn is not, (3) posture and physical poise, (4) address–frank, direct, neither hang-dogged nor smart alecky.

Trait No. 4 – *CREATIVITY–ORIGINALITY* – Originality is primarily the mental capacity to be intelligently and constructively different, to search imaginatively for Galbreth's "One Best Way." Originality is neither perfect blind followership nor unorthodoxy for the sake of being different. Creativity is essentially the doing, the building, the bringing into being the results of originality. Desire, planning, execution and pleasure in accomplishment should be involved. Creativity and originality produce new books, cakes, chemicals, works of art, bridges, buildings, and beautiful interior decorations.

Trait No. 5 – *CURIOSITY AND INTEREST* – The aggressive, inquisitiveness and anxiousness to learn through careful attention the "what, why, when, where, and how" of phenomena in and outside the classroom; the intellectual engrossment in exploration and investigation characterized by active, thorough, purposeful study; a lively involvement in satisfying a thirst for knowledge.

Trait No. 6 – *INDUSTRY* – The ability and willingness to exercise dilligence, aggressiveness, steadfastness, persistence, and perseverence in application to assigned tasks; the degree of stick-to-itiveness exhibited toward the completion of a task; the amount, intensity, and steadiness of effort expended toward a goal.

Trait No. 7 – *JUDGMENT* – The ability to discriminate from data and effective reasoning the important elements and values of a situation and make sound decisions or conclusions; the ability to reach logical, accurate, and practical

decisions or conclusions by assembling, evaluating, comparing, all available data; the ability to anticipate, and discriminate between, alternate courses of thought and/or action.

Trait No. 8 – *SELF-CONFIDENCE* – Self-reliance, self-assurance, certainty in own abilities, opinions, actions, and objectives in and outside the classroom; the freedom from unjustified fears and inhibitions due to realistic evaluation of own abilities, skills and strengths required for particular tasks, actions, or assignments.

Trait No. 9 – *DEPENDABILITY* – The trait which enables those who work with, or depend on, individuals to know that their promises, obligations, and responsibilities will be fulfilled.

Trait No. 10 – *LEADERSHIP* – The initiative and ability to inspire, direct, control, stimulate, and influence others toward group action; the ability to organize, manage, or direct the efforts of others effectively; skill and resourcefulness in organizing, initiating, and securing cooperation of others for group action in and outside the classroom.

THE SCALE AND ITS USE

Measuring devices for length, weight, electricity, liquids, etc., by law, have feet, yards, pounds, and gallons with exact definitions and specifications. A scale for measuring qualities or personal traits, to be usable, must have definitions and specifications. In rating scales, such as the "Student Evaluation Scale1-B", the definitions and specifications should create images comparable to the progressively better specimens in handwriting scales, or the color scales used by paint mixers or blenders.

A.D., C.M., A.N. – U of W

MP:he

—MODEL INTERMEDIATE ENRICHMENT CENTER—
STUDENT EVALUATION SCALE 1—B

	—Low—	—Average—	—High—
1	1 2 3	4 5 6	7 8 9
ALERTNESS	Frequently inattentive, distracted, preoccupied, and unresponsive; passive. Engages in program to limited degree. Absent-minded, frequently daydreams; dull. Asks thoughtless questions.	Moderate attentiveness; active in the most interesting phases. Occasionally attention wanders. Occasionally asks questions, usually responds to questions.	Completely absorbed and engrossed in work; gives his undivided attention. Frequently asks pertinent intelligent questions. Lively, responsive wide-awake; "catches-on" quickly; perceptive.
Attentiveness, vigilance, wakefulness, sensitiveness in and outside the classroom; perceives and reacts to what he sees and hears.			
Not Observed X			
2	—High—	—Average—	—Low—
	9 8 7	6 5 4	3 2 1
AMBITION	Resolute, decisive, definite, eager concerning personal accomplishment. Willing to sacrifice to achieve purposeful realistic, high goals.	Moderate determination for honors, knowledge, advancement, personal achievements. Average goals through moderate sacrifice.	Little desire for knowledge, personal improvement, content, to "get by," complacent "as is". Goals vague, unrealistic, indefinite or nonexistent.
Eagerness for knowledge, honors advancement, superior attainment; determined to achieve purposeful, high realistic goals.			
Not Observed X			
3	—Low—	—Average—	—High—
	1 2 3	4 5 6	7 8 9
APPEARANCE AND BEARING	Slovenly; neglects grooming and clothes; frequently dresses inappropriately. Unconcerned about poor carriage, slouchiness, lack of coordination, awkwardness. Makes unfavorable impression. Room for much improvement.	Usually exhibits orderliness, tidiness in dress and grooming; room for improvement. Blends into the group.	Habitually careful about grooming, cleanliness, posture, condition and appropriateness of dress. Stands, sits, walks erect assumes an attentive posture. Stands out; creates highly favorable impression by appearance.
Personal grooming, cleanliness; neatness, appropriateness, and condition of clothing; posture, physical demeanor; composure; poise; mannerisms which create levels of impression.			
Not Observed X			
4	—High—	—Average—	—Low—
	9 8 7	6 5 4	3 2 1
CREATIVITY—ORIGINALITY	Ingenious, inventive, productive. Quick to devise, develop and test new approaches to problems. Vivid, lively, fertile, practical imagination; formulates and tests worthwhile, original, novel ideas.	Usually accepts the orthodox; occasionally attempts original, constructive, ingenious, thought and action. Ability to perceive areas for improvement varies; usually dependent upon directions.	Unable to depart from the traditional, or to generate new ideas, solutions, developments. Unimaginative, uninventive. Definite dearth of new ideas.
Capacity and willingness for constructive, rational, unorthodox, independent solutions and actions. Intelligent, inventive, ingenious, productive, imaginative, or novel in thought and action.			
Not Observed X			
5	—Low—	—Average—	—High—
	1 2 3	4 5 6	7 8 9
CURIOSITY AND INTEREST	Unreflective, uninquiring, narrow, indifferent. Disinterested in schoolwork; unconcerned with intellectual pursuits; little or no interests in the "what, why, when, where, how."	Moderately interested in school subjects and world phenomena; asks questions. Inquisitiveness occasionally aroused in manipulative or exploratory activities.	Thoughtful, analytical curious, intellectually energetic, broad interests. Unfamiliar excites his inquisitiveness; asks penetrating questions; inspired to independent investigation. Definite thirst for knowledge.
Aggressive inquisitiveness and desire to learn the "what, why, when, where, how" by thorough, active, and purposeful inquiry, study, and careful exploration and investigation.			
Not Observed X			

STUDENT EVALUATION SCALE 1-B (Continued)

Model Intermediate Enrichment Center

6 **INDUSTRY** Perseverance, aggressiveness, diligence, persistence, steadfastness in application to assigned tasks. Capacity and willingness to pursue tasks until completed. Not Observed X	—High— 9 8 7 Outstanding aggressiveness, drive, perseverance, diligence, effort, persistence and application on purposeful tasks. Conscientious, tireless, energetic, enterprising, painstaking worker.	—Average— 6 5 4 Average diligence, steadfastness, perseverance, application to assigned tasks. Usually pursues tasks to completion; occasionally requires prodding, or stimulation.	—Low— 3 2 1 Definite lack of effort, persistance, perseverance application, steadfastness. Easily distracted, discouraged, requires continual prodding; indifferant, wastes time, accomplishes little.
7 **JUDGMENT** Ability to reason from known date to logical decisions, conclusions, to anticipate and evaluate results of alternative actions; to think ahead. Not Observed X	—Low— 1 2 3 Uses careless, indiscriminate, thoughtless approaches to solving problems; neglects or misinterprets facts. Formulates fanciful, illogical, unsound, impractical, inexact,decisions or conclusions.	—Average— 4 5 6 Considers most facts, variables; usually sees relationships. Decisions usually based on logical reasoning; occasionally jumps to conclusions.	—High— 7 8 9 Uses careful, discriminating, systematic, analytical approaches in making decisions; foresight and clarity in thinking. Consistently logical, practical, accepts decisions.
8 **SELF-CONFIDENCE** Self-(sufficiency, dependence, reliance, assurance, sureness,) confident about own abilities, opinions, actions, and objectives. Not Observed X	—High— 9 8 7 Balance self-(reliance, sureness, assurance, evaluation) confidence in own abilities, actions, opinions. Calm, poised, self-reliant, free from unfounded fears.	—Average— 6 5 4 Usually reasonable self-/reliant, confident, assured). Occasionally disconcerted, ill-at-ease; or needs encouragement.	—Low— 3 2 1 Overestimates own abilities, overconfident, conceited; lacking in modesty, humility; OR unduly hesitant, uncertain, timid, unsure, embarassed, shy, fearful, bashful, retiring.
9 **DEPENDABILITY** Trustworthiness, reliability, responsibility, predictability, in responsibilities, promises and obligations; punctuality in assumed or assigned tasks. Not Observed X	—Low— 1 2 3 Relatively undependable, untrustworthy, unreliable, irresponsible in executing responsibilities, promises, obligations. Late with assignments; procrastinates. Needs continual prodding, supervision.	—Average— 4 5 6 Usually trustworthy, responsible, reliable, punctual in executing most responsibilities, promises, obligations. Occasionally needs prodding.	—High— 7 8 9 Habitually conscientious, trustworthy, reliable, responsible, punctual in executing obligations, responsibilities, promises and assignments. Has high sense of duty; rarely needs prodding.
10 **LEADERSHIP** Ability and initiative to direct, organize, stimulate, influence group action. Not Observed X	—High— 9 8 7 An effective leader; forceful, capable, inspires confidence. Influences, stimulates, organizes manages others efforts toward group goals.	—Average— 6 5 4 Moderately effective leader in organizing, managing, influencing others in ordinary situations. Usually cannot handle difficult groups and situations.	—Low— 3 2 1 A follower, submissive, lacks initiative of leader. Unable effectively to organize, direct others toward group goals.

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Great Falls Public Schools
Great Falls, Montana

SELF-ESTEEM INVENTORY

Please mark each statement in the following way:

If the statement describes how you usually feel, put a check (✓) in the column, "Like Me."

If the statement does not describe how you usually feel, put a check (✓) in the column, "Unlike Me."

There are no right or wrong answers.

	Like Me	Unlike Me
1. I spend a lot of time daydreaming.	_____	_____
2. I'm pretty sure of myself.	_____	_____
3. I often wish I were someone else.	_____	_____
4. I'm easy to like.	_____	_____
5. My parents and I have a lot of fun together.	_____	_____
6. I never worry about anything.	_____	_____
7. I find it very hard to talk in front of the class.	_____	_____
8. I wish I were younger.	_____	_____
9. There are lots of things about myself I'd change if I could.	_____	_____
10. I can make up my mind without too much trouble.	_____	_____
11. I'm a lot of fun to be with.	_____	_____
12. I get upset easily at home.	_____	_____
13. I always do the right thing.	_____	_____
14. I'm proud of my school work.	_____	_____
15. Someone always has to tell me what to do.	_____	_____
16. It takes me a long time to get used to anything new.	_____	_____
17. I'm often sorry for the things I do.	_____	_____
18. I'm popular with kids my own age.	_____	_____
19. My parents usually consider my feelings.	_____	_____
20. I'm never unhappy.	_____	_____
21. I'm doing the best work that I can.	_____	_____
22. I give in very easily.	_____	_____
23. I can usually take care of myself.	_____	_____
24. I'm pretty happy.	_____	_____
25. I would rather play with children younger than me.	_____	_____

From: Great Falls Public Schools, Great Falls, Montana.

		Like Me	Unlike Me
26.	My parents expect too much of me.	_____	_____
27.	I like everyone I know.	_____	_____
28.	I like to be called on in class.	_____	_____
29.	I understand myself.	_____	_____
30.	It's pretty tough to be me.	_____	_____
31.	Things are all mixed up in my life.	_____	_____
32.	Kids usually follow my ideas.	_____	_____
33.	No one pays much attention to me at home.	_____	_____
34.	I never get scolded.	_____	_____
35.	I'm not doing as well in school as I'd like to.	_____	_____
36.	I can make up my mind and stick to it.	_____	_____
37.	I really don't like being a boy--girl.	_____	_____
38.	I have a low opinion of myself.	_____	_____
39.	I don't like to be with other people.	_____	_____
40.	There are many times when I'd like to leave home.	_____	_____
41.	I'm never shy.	_____	_____
42.	I often feel upset in school.	_____	_____
43.	I often feel ashamed of myself.	_____	_____
44.	I'm not as nice looking as most people.	_____	_____
45.	If I have something to say, I usually say it.	_____	_____
46.	Kids pick on me very often.	_____	_____
47.	My parents understand me.	_____	_____
48.	I always tell the truth.	_____	_____
49.	My teacher makes me feel I'm not good enough.	_____	_____
50.	I don't care what happens to me.	_____	_____
51.	I'm a failure.	_____	_____
52.	I get upset easily when I'm scolded.	_____	_____
53.	Most people are better liked than I am.	_____	_____
54.	I usually feel as if my parents are pushing me.	_____	_____
55.	I always know what to say to people.	_____	_____
56.	I often get discouraged in school.	_____	_____
57.	Things usually don't bother me.	_____	_____
58.	I can't be depended on.	_____	_____

CORONADO UNIFIED SCHOOL DISTRICT
STATE PROGRAM FOR MENTALLY GIFTED MINORS
PARENT EVALUATION OF PUPIL (Elementary)

Pupil's Name _____ Parent's Name _____ Date _____

Grade _____

Please rate your child according to the following scale below, checking the letter a, b, c, d, e on the line following each item.

(a) Always
(b) Usually
(c) About half the time
(d) Seldom
(e) Never

	a	b	c	d	e
1. Solves problems independently					
2. Demonstrates knowledge in science, social studies and literature					
3. Is interested in school					
4. Uses books and research materials to get information					
5. Studies independently and plans study time					
6. Gets along with others					
7. Demonstrates critical thinking ability					
8. Is motivated to learn					
9. Is curious					
10. Accepts responsibility					
11. Thinks creatively					
12. Understands self					
13. Accepts leadership roles					

A similar evaluation will be made at the end of the year.

From: Coronado Unified School District, Coronado, California.

CORONADO UNIFIED SCHOOL DISTRICT
STATE PROGRAM FOR MENTALLY GIFTED MINORS

STUDENT EVALUATION SCALE (Elementary)

_____ _____ _____

Name Teacher & Room No. Date

Grade _____

Please rate yourself according to the following scale below, checking the letter a, b, c, d, e on the line following each item.

(a) Always
(b) Usually
(c) About half the time
(d) Seldom
(e) Never

	a	b	c	d	e
1. I can solve problems					
2. I know about science, social studies, literature					
3. I am interested in school					
4. I know how to use books and research materials to get information					
5. I am able to study well alone and budget my study time					
6. I get along well with other students					
7. I am able to consider more than one solution to a problem.					
8. Learning is important to me					
9. I am curious.					
10. I am able to accept responsibility					
11. I think of original ideas					
12. I think that I can estimate my own strengths and weaknesses					
13. I am a leader					

A similar evaluation will be made at the end of the year.

From: Coronado Unified School District, Coronado, California.

CORONADO UNIFIED SCHOOL DISTRICT

MGM EVALUATION FORM FOR USE IN GRADES 7-8 FOR 1974

TEACHER'S FORM

Student's Name _____

Based on this student's involvement in the Gifted Program and your awareness of it, please circle the number which represents your opinion in each of the following questions:

(1) to a great extent (2) somewhat (3) very little (4) not at all
(5) does not apply in my association with this student

1.	This student was exposed to people in selected areas of the business, professional and cultural world through one or more field trips and/or in bringing in outside speakers.	1	2	3	4	5
	Comments:					
2.	This student was involved in a variety of experiences (projects, reports, group work) which seemed to *increase* his intellectual *curiosity* and aesthetic *awareness.*	1	2	3	4	5
	Comments:					
3.	This student is developing basic technical skills required for:					
	(a) gaining information	1	2	3	4	5
	(b) doing independent research	1	2	3	4	5
	(c) using the inquiry approach to learning	1	2	3	4	5
	(d) preparing special reports	1	2	3	4	5
	(e) improving own speech pattern and communication skills	1	2	3	4	5
	Comments:					
4.	This student engaged in activities directed toward developing self direction, responsibility, and leadership skills (small group work in classes, projects, student activities etc.)	1	2	3	4	5
	Comments:					

From: Coronado Unified School District, Coronado, California.

5. Due to grouping with peers of equal ability, or projects in my class that are flexible enough to fit the ability and creativity of the individual, this student was provided with a psychologically safe environment where he could develop to his fullest potential.

1	2	3	4	5

Comments:

APPENDIX C

Sample Instruments for Evaluating Inservice Training

	Title	Source	Page
1.	Post Institute Reaction Sheet	National Summer Leadership Training Institute of the Education of the Gifted and Talented	167
2.	Session Evaluation	Movement Education for Handicapped Children, Windsor, Connecticut	173
3.	Project ASPIRES – Session Evaluation	Project ASPIRES, Hartford, Connecticut	175
4.	Pre-Program Reaction Form	Project ASPIRES, Hartford, Connecticut	177

POST-INSTITUTE REACTION SHEET

Code ID _____

INSTRUCTIONS:

In the following set of questions you are being asked ten aspects of the N/S-LTI-G/T. Two rating scales are provided: a quality scale and an importance scale. On the quality scale please check the box that appropriately reflects your feelings about the quality of each aspect of the LTI. On the importance scale please estimate the relative importance of each aspect in contributing to LTI success. For example, if you were rating the quality of the bed springs in your room, you might feel they were very good, but of minimum importance to the success of the LTI, therefore:

	Quality					Importance				
Bed Springs	-2	-1	0	+1	+2	1	2	3	4	5
	Very Poor	Poor	Barely Acceptable	Good	Very Good	Minimum Importance		Moderate		Maximum Importance

1.1 Indicate your general feelings about the following aspects of the Summer LTI:

		Quality					Importance				
		-2	-1	0	+1	+2	1	2	3	4	5
(a)	Quality of instructors	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
(b)	Quality of room environment	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
(c)	Effectiveness of location in Squaw Valley	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
(d)	Quality of your accomodations	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
(e)	Effectiveness of institute management	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
(f)	Use of gifted youth at the institute	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
(g)	Length of Summer Institute	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
(h)	Effectiveness of published materials	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
(i)	Appropriateness of overall program	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

(j) Extra curricular activities ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

1.2 What other factors of the LTI were important to you? *(List in order of importance)*

_____

_____

_____

_____

2. Do you feel that your insight into the needs and aims of the gifted and talented has been improved?

☐ Yes *(go to "A")* ☐ No *(go to "B")*

A. How much has your insight been improved?

_____

_____

_____

_____

B. Please comment on what could have been done to improve your insight?

_____

_____

_____

_____

3. Do you feel that the Summer LTI has helped you gain insight into the politics of decision making in education, as it relates to the gifted and talented?

☐ Yes *(go to "A")* ☐ No *(go to "B")*

A. How much has your insight improved? *(Check one)*

☐ ☐ ☐ ☐ ☐

1	2	3	4	5
Minimally, barely useful	Less than expected but useful	As expected, very useful	More than expected, very useful	Far more, than expected, very useful

B. Please comment on what could have been done to improve your insight.

_____

_____

_____

_____

4. Please check one answer concerning the participation of high school students in the LTI.

☐ I feel that the high school students' input contributed significantly to the overall effectiveness of the LTI.

☐ I feel that the high school students were a nice touch, but they did not contribute much to the input to the LTI.

☐ I feel that the use of high school students was a mistake for the following reasons:

_____

_____

_____

5. What unexpected, but useful information or ability did you obtain from your LTI experience?

_____

_____

_____

_____

6. Did you find the ideas expressed at the LTI to be consistent with your own values?

☐ Always ☐ Sometimes ☐ Rarely ☐ Never

7. Are you comfortable with your state position paper?

☐ Yes ☐ No

8. Did you feel that the state plan you evolved is a workable one?

☐ Yes ☐ No

9. Do you feel that this LTI has helped to motivate you towards developing opportunities for the gifted?

☐ Yes ☐ No, I was already motivated ☐ No, I've lost interest

10. How good was the organization and education of the Summer LTI? *(check one)*

☐ Done with great style and precision

☐ Creative in concept but poorly organized

☐ Well organized, but dull

☐ Poorly organized and dull

☐ A waste of my good time

☐ Other *(please specify)*

_____

11. How useful do you anticipate the materials presented at the institute will help you set up or improve programs for gifted and talented in your state?

☐ ☐ ☐ ☐ ☐

-2	-1	0	+1	+2
Very Poor	Poor	Barely Acceptable	Good	Very Good

12. In what ways, if any, did the LTI experience change your philosophical position concerning the gifted?

_____

_____

_____

_____

13. How effective was the LTI in terms of your original expectations?

☐ ☐ ☐ ☐ ☐

-2	-1	0	+1	+2
Very Poor	Poor	Barely Acceptable	Good	Very Good

14. *The following list of expectations was generated by you and other persons attending the institute through the Pre-Institute Reaction Sheet. Please indicate your satisfaction (right hand column) for each of the items below.*

		Quality					Importance				
A.	*Expectations relating to state plan:*	-2	-1	0	+1	+2	1	2	3	4	5
	1. *Increased insight needed to develop a comprehensive state plan.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	2. *A specific definition for "gifted and talented."*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	3. *Increased knowledge of identification procedures.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	4. *Increased knowledge of program planning alternatives (i.e., techniques and approaches etc.)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	5. *Insight into how to improve legislation for the gifted.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	6. *Ideas for teacher training.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	7. *Knowledge of how to conduct a state assessment of present conditions in education for G/T youth.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	8. *Good criteria for selecting teachers for the gifted.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.	*Expectations relating to resources:*										
	1. *Increased knowledge of what is happening in education of the gifted and and talented.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	2. *Interaction with leaders in research and programming for the gifted.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	3. *To develop a closer working relationship with other states in my region.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	4. *Increased awareness of information sources on the gifted.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	5. *Exchange of ideas with other states.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
C.	*Expectation related to follow up:*										
	1. *Insight into the problem for improved public relations.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

☐ I feel that the use of high school students was a mistake for the following reasons:

_____

_____

_____

5. What unexpected, but useful information or ability did you obtain from your LTI experience?

_____

_____

_____

_____

6. Did you find the ideas expressed at the LTI to be consistent with your own values?

☐ Always ☐ Sometimes ☐ Rarely ☐ Never

7. Are you comfortable with your state position paper?

☐ Yes ☐ No

8. Did you feel that the state plan you evolved is a workable one?

☐ Yes ☐ No

9. Do you feel that this LTI has helped to motivate you towards developing opportunities for the gifted?

☐ Yes ☐ No, I was already motivated ☐ No, I've lost interest

10. How good was the organization and education of the Summer LTI? *(check one)*

☐ Done with great style and precision

☐ Creative in concept but poorly organized

☐ Well organized, but dull

☐ Poorly organized and dull

☐ A waste of my good time

☐ Other *(please specify)*

_____

11. How useful do you anticipate the materials presented at the institute will help you set up or improve programs for gifted and talented in your state?

☐ ☐ ☐ ☐ ☐

-2	-1	0	+1	+2
Very Poor	Poor	Barely Acceptable	Good	Very Good

12. In what ways, if any, did the LTI experience change your philosophical position concerning the gifted?

_____

_____

_____

_____

13. How effective was the LTI in terms of your original expectations?

☐ ☐ ☐ ☐ ☐

-2	-1	0	+1	+2
Very Poor	Poor	Barely Acceptable	Good	Very Good

14. *The following list of expectations was generated by you and other persons attending the institute through the Pre-Institute Reaction Sheet. Please indicate your satisfaction (right hand column) for each of the items below.*

		Quality					Importance				
A.	*Expectations relating to state plan:*	-2	-1	0	+1	+2	1	2	3	4	5
	1. *Increased insight needed to develop a comprehensive state plan.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	2. *A specific definition for "gifted and talented."*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	3. *Increased knowledge of identification procedures.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	4. *Increased knowledge of program planning alternatives (i.e., techniques and approaches etc.)*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	5. *Insight into how to improve legislation for the gifted.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	6. *Ideas for teacher training.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	7. *Knowledge of how to conduct a state assessment of present conditions in education for G/T youth.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	8. *Good criteria for selecting teachers for the gifted.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B.	*Expectations relating to resources:*										
	1. *Increased knowledge of what is happening in education of the gifted and and talented.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	2. *Interaction with leaders in research and programming for the gifted.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	3. *To develop a closer working relationship with other states in my region.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	4. *Increased awareness of information sources on the gifted.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	5. *Exchange of ideas with other states.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
C.	*Expectation related to follow up:*										
	1. *Insight into the problem for improved public relations.*	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Date _____

Instructor _____

SESSION EVALUATION

I. After responding to each item below, please indicate how important you feel this factor was for the success of the session by checking the appropriate box to the left of the question.

Absolutely essential		Important		Not at all important		Very clear		Hazy	Could not be determined	
☐	☐	☐	☐	☐	1. Were the objectives of this session made clear?	☐	☐	☐	☐	☐
						To a large extent	Somewhat		Not at all or could not be determined	
☐	☐	☐	☐	☐	2. Were the objectives of this session achieved?	☐	☐	☐	☐	☐
						Greatly	Somewhat		Not at all	
☐	☐	☐	☐	☐	3. Did the concepts presented in this session contribute to your understanding of movement?	☐	☐	☐	☐	☐
						Very relevant & applicable	Somewhat		Not at all relevant or applicable	
☐	☐	☐	☐	☐	4. Could you see the relevance and applicability of the movement concepts presented in this session to your functioning in the classroom?	☐	☐	☐	☐	☐
						Concepts easily understood	Sentances unclear		Concepts not understood	
☐	☐	☐	☐	☐	5. Were the concepts presented in such a way that they were easily understood and adopted?	☐	☐	☐	☐	☐
						Sufficient opportunity	Could use more or less		Too much or too little practice	
☐	☐	☐	☐	☐	6. Were you given sufficient opportunity to practice movements in today's session?	☐	☐	☐	☐	☐
						Highly appropriate	Somewhat strenuous		Too strenuous or advanced for me to participate	
☐	☐	☐	☐	☐	7. Was the physical activity required within your capability?	☐	☐	☐	☐	☐
						Very embarrased	A little emborassed		Very comfortable	
☐	☐	☐	☐	☐	8. Were you embarassed or uncomfortable as a result of activities required in today's session?	☐	☐	☐	☐	☐

II. Answer all of the following which are appropriate to today's session.

1. How will your general behavior change as a result of today's session?

2. How will your teaching behavior change as a result of today's session?

3. How might you use concepts which you learned in today's session in your classroom?

From: Renzulli, J. S., & Ford, B. G. *Movement Education for Handicapped Children*. Storrs: The University of Connecticut, 1974.

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Date _____

Instructor _____

Project ASPIRES – Session Evaluation

I. Please check the box that you feel is the best expression of your opinion about each of the following questions.

1. Were the objectives of this session made clear?

Very clear		Hazy		Could not be determined
☐	☐	☐	☐	☐

Comments:

2. Were the objectives of this session achieved?

To a large extent		Somewhat		Not at all or could not be determined
☐	☐	☐	☐	☐

Comments:

3. Did the concepts presented in this session contribute to your understanding of science?

Greatly		Somewhat		Not at all
☐	☐	☐	☐	☐

Comments:

4. Could you see the relevance and applicability of the science concepts presented in this session to your functioning in the classroom?

Very relevant and applicable		Somewhat		Not at all relevant or applicable
☐	☐	☐	☐	☐

Comments:

5. Were the concepts presented in such a way that they were easily understood and adopted?

Concepts easily understood		Unclear		Concepts not understood
☐	☐	☐	☐	☐

Comments:

6. Were you given sufficient opportunity to ask questions in today's session?

Sufficient opportunity		Somewhat		Not enough opportunity
☐	☐	☐	☐	☐

Comments:

II. Please comment on any aspects of today's session that you feel were *especially valuable* or that you would like to see *changed* in any way. Use the back of this page if you need more space.

From: Renzulli, J. S., & Hoffman, F. B. *An Evaluation of Project ASPIRES.* Hartford, Connecticut: The Hartford Public Schools, 1974.

Project ASPIRES
PRE-PROGRAM REACTION FORM

NOTE:
Same instrument is administered as a **POST-PROGRAM REACTION FORM** so that changes in intended growth can be compared.

Please do **NOT** sign your name.

Part I. Could you explain the following terms of concepts if you were called upon to do so?

Can you explain or demonstrate:	Not at all	I could make a guess	I could explain or demonstrate fairly well	I could explain or demonstrate very accurately
1. how to determine the properties of air	_____	_____	_____	_____
2. how air "behaves"	_____	_____	_____	_____
3. how to read an anemometer	_____	_____	_____	_____
4. how to make a rain gauge	_____	_____	_____	_____
5. how to decode a weather map	_____	_____	_____	_____
6. how to predict the location and phases of the moon	_____	_____	_____	_____
7. the descriptive names and features of the sun's surface	_____	_____	_____	_____
8. the descriptive names and features of the moon's surface	_____	_____	_____	_____
9. how to locate man-made satellites in the evening sky	_____	_____	_____	_____
10. how to gather light from solar system objects with a telescope	_____	_____	_____	_____
11. how to identify the five properties of minerals	_____	_____	_____	_____
12. how to classify rocks into their three main groups	_____	_____	_____	_____
13. how rocks are formed	_____	_____	_____	_____
14. the process of mountain building	_____	_____	_____	_____
15. the major agents of change of the earth's surface	_____	_____	_____	_____
16. the use of a microscope	_____	_____	_____	_____
17. how to identify various kinds of plants	_____	_____	_____	_____
18. how to sketch lichens	_____	_____	_____	_____
19. the interdependence of living things	_____	_____	_____	_____
20. how to sketch the growth of seeds	_____	_____	_____	_____

From: Renzulli, J. S., & Hoffman, F. B. *An Evaluation of Project ASPIRES.* Hartford, Connecticut: The Hartford Public Schools, 1974.

Can you explain or demonstrate:	Not at all	I could make a guess	I could explain or demonstrate fairly well	I could explain or demonstrate very accurately
21. how electricity can be produced by chemical and magnetic means	_____	_____	_____	_____
22. how to identify electrical components by their symbols	_____	_____	_____	_____
23. how to make an electrical circuit	_____	_____	_____	_____
24. how to distinguish between good and poor conductors	_____	_____	_____	_____
25. how radio waves carry information over long distances	_____	_____	_____	_____

Part II

1. Check the following statements that best describe your *interest* in the subject of science:

   _____ a. It is my favorite subject

   _____ b. It ranks high among the subjects that I like to teach

   _____ c. I neither like or dislike to teach science

   _____ d. It ranks low among the subjects that I like to teach

   _____ e. It is my least favorite subject

2. Check the following statement that best describes your feeling of *competency* in the teaching of science:

   _____ a. I feel extremely competent in this area

   _____ b. I feel somewhat competent in this area

   _____ c. I feel mildly competent in this area

   _____ d. I do not feel at all competent in this area

3. How often do you ordinarily teach lessons in science?

   _____ a. Every day

   _____ b. Three or four times per week

   _____ c. Once or twice per week

   _____ d. Not at all

	Yes	No
4. Do you have a clear understanding of the objectives of Project ASPIRES?	_____	_____
5. Were you sufficiently informed about the purpose of the program prior to attending the first session?	_____	_____
6. Do you think that your students' *performance* in reading can be improved through the study of science?	_____	_____
7. Do you think that your students' *interest* in reading can be improved through the study of science?	_____	_____
8. What are your major expectations from participating in this program?	_____	_____

Please use the back of this page if you need more space.

APPENDIX D

Sample Instruments for Evaluating Various Aspects of Program Operation and Follow-up Instruments

	Title	Source	Page
1.	Management Evaluation Form	Project Improve Derby, Connecticut	181
2.	Evaluation of Identification Procedures by Selection Committees	Alpha Project for Able Learners Seattle, Washington	185
3.	Self-Evaluation by Teachers in Project	California Gifted Program	189
4.	Teacher's Appraisal of Creative Problem Solving Lesson	Chicago Public Schools Chicago, Illinois	191
5.	Class Behavior Observation Checklist	Chicago Public Schools Chicago, Illinois	193
6.	End-of-Year Evaluation	Mentally Gifted Minor Program Huntington Beach, California	195
7.	Project Director Questionnaire	Illinois Gifted Program	197
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9.	Instructor Follow-up Questionnaire	Georgia, Governor's Honors Program	207
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11.	Movement Education Activities Log	Movement Education for Handicapped Children Windsor, Connecticut	219

PROJECT IMPROVE

Management Evaluation Form

Joseph S. Renzulli
The University of Connecticut

As part of the overall evaluation of Project Improve, the evaluators would like to obtain some information regarding the effectiveness of the management of the project. The purpose of this questionnaire is to obtain feedback that will assist the project director in meeting the perceived needs of various groups of persons who are connected with the project. This information is being sought at the request of the project director for the sole purpose of helping him to determine the ways in which he may better serve the project.

Please do *not* sign your name to this questionnaire. No attempt will be made to identify persons completing the questionnaires. Please return the questionnaire in the attached envelope at your earliest convenience. In order to insure a comprehensive evaluation, it is important that all persons complete and return their questionnaires.

Each of the statements below describes a characteristic of a project director or activity that might be involved in the management of a project. Please read the statements carefully and place an X in the appropriate space according to the following scale of values.

1. If you have *seldom or never* observed this characteristic or activity.
2. If you have *occasionally* observed this characteristic or activity.
3. If you have observed this characteristic or activity *to a considerable degree.*
4. If you have observed this characteristic or activity *almost all of the time.*
5. If you have not had an opportunity to judge this characteristic or activity, or if the activity is *not applicable* to your role in the project.

From: Renzulli, J. S., & Callahan, C. M. *An Evaluation of Project Improve.* Storrs: The University of Connecticut, 1972.

		Seldom or Never	Occasional	To a Considerable Degree	Almost Always	No Opportunity To Judge Not Applicable
1.	The project director has provided me with the type of information that is necessary for me to carry out my function in the project.	____	____	____	____	____
2.	The information has been provided in a form that enables me to use it in an efficient way.	____	____	____	____	____
3.	The information explains the type of problem involved relevant to the decisions that I must make or the action I must take.	____	____	____	____	____
4.	The project director has provided me with *enough* information related to a given problem or activity with which I am involved.	____	____	____	____	____
5.	The project director makes his attitudes and feelings clear to me.	____	____	____	____	____
6.	The project director allows me to participate in decision making when the decisions will affect my role or function in the project.	____	____	____	____	____
7.	The project director feels that it is important for me to understand the reason why certain decisions have been made.	____	____	____	____	____
8.	When confronted with a difficult problem, the project director attempts to reach a solution that will be at least partially acceptable to all concerned.	____	____	____	____	____
9.	The project director gives reasonable consideration to my suggestions.	____	____	____	____	____
10.	The project director attempts to put suggestions made by me into practice.	____	____	____	____	____
11.	I feel that the project director is making the best possible use of my talent or ability to contribute to the project.	____	____	____	____	____

	Seldom or Never	Occasional	To a Considerable Degree	Almost Always	No Opportunity To Judge Not Applicable
12. The project director is just and considerate in assigning duties to his subordinates.	____	____	____	____	____
13. The project director is available when I want to talk with him.	____	____	____	____	____
14. The general morale of the staff is high.	____	____	____	____	____
15. The project director appears to be operating from a well-organized plan.	____	____	____	____	____
16. I feel that I am sufficiently aware of the short and long-range direction in which the project is heading.	____	____	____	____	____
17. The project director sets realistic deadlines and attempts to to see that the deadlines are met.	____	____	____	____	____
18. The project director sees to it that the work of persons who play different roles in the project is well coordinated.	____	____	____	____	____
19. The project director is knowledgeable of pertinent details of his subordinate's work.	____	____	____	____	____
20. The essential work of the project gets done on time.	____	____	____	____	____
21. The project director is able to identify and isolate problems.	____	____	____	____	____
22. The project director is flexible and adaptive to changes in events and circumstances.	____	____	____	____	____
23. The project director is open-minded and willing to change or modify his original plans and objectives.	____	____	____	____	____
24. When presented with a given problem, the project director explores a number of possible solutions before deciding which course of action he will take.	____	____	____	____	____
25. The project director is open to new ideas.	____	____	____	____	____
26. The project director is able to develop and elaborate upon concepts and ideas.	____	____	____	____	____

In the space that follows, please comment on any and all aspects about the effectiveness of the management of Project Improve. Your frank and honest comments will be of great value in bringing about any needed change in the program.

Please check the space below which applies to you.

_____ Project Improve Board of Directors

_____ Project Improve Staff

_____ Consultant

_____ Teacher from cooperating school

_____ Principal from cooperating school

_____ Member of Placement and Planning Team

_____ Other

ALPHA PROJECT
FOR ABLE LEARNERS

Evaluation of Identification Procedures By Selection Committees

Prepared by:
Dr. Joseph S. Renzulli
University of Connecticut

Sponsored by:
Superintendent of Public Instruction
State of Washington

* *

Name _____ Date _____

School District _____ Position _____

DIRECTIONS

Part A: *Ratings as an Individual:*

Listed below are the types of information that were used in your school district for selecting students for the Alpha Project. Please rate (circle) each item according to the *usefulness* or *value* of the information in helping you to make your decisions. As you rate the items, think only of how the information influenced you as an individual rather than how it influenced the entire selection committee. If you did not have access to a particular type of information, please circle the Not Applicable (NA) column. After you have completed your rating for each item, go back over the list and rank the items according to their order of importance in influencing your decisions. Assign the rank of "1" to the most useful or influential type of information and continue numbering until you have ranked all items which you have rated.

As you complete this questionnaire, it will be helpful if you keep a copy of the forms and test before you for easy reference.

Part B: *Rating as A Group*

Now do the same thing under the Section labeled Part B, but this time try to estimate those factors that were the most influential on the entire selection committee.

Part C: *Open-Ended Questions:*

Please answer all of the questions on the last page.

	Part A: Rating as an Individual							Part B: Rating as a Group						
	Most Useful				Least Useful		Rank	Most Useful				Least Useful		Rank
1. Background Information Form (Part I)														
A. Summary of School Experience	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
B. Description of Parents	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
C. Description of Family Unit	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
D. Siblings in the Home	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
2. Health Record (Part II)														
A. Data Relevant to Physical Development	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
B. Energy Level Rating	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
C. Current Problems or Handicaps	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
D. History of Illnesses or Problems	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
E. Health Tests and Measurements	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
F. Results of Medical Examinations	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
3. Screening and Nomination Form (Part III)														
A. Academic Achievement Tests	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
B. Group Ability Tests	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
C. Individual Intelligence Tests	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
D. Other Tests or Examinations	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
E. Rating of Intellectual Functioning (Items 1-26)	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
F. Interest/Performance/ Capability Rating (Between Items 26 and 27)	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____

	Part A: Rating as an Individual							Part B: Rating as a Group						
	Most Useful				Least Useful		Rank	Most Useful				Least Useful		Rank
G. Physical Development (Items 27-32)	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
H. Social Development (Items 33-41)	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
I. Emotional Development (Items 42-53)	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
4. Parent Inventory (Part IV)	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
5. Pupil Inventory	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
6. Pupil Rating	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
7. Preference for Working Conditions	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
8. Value Ranking	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
9. Other (specify) _____	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____
10. Other (specify) _____	5	4	3	2	1	NA	____	5	4	3	2	1	NA	____

Open-Ended Questions

1. In the space below list or describe any *information that was not available* but that you would have liked to have had in making your decisions about student selection for the Alpha Project.

2. What changes would you like to make in the screening and identification process?

3. In the space below please comment about your overall satisfaction and/or dissatisfaction with the total screening and selection process. We are especially interested in *both* positive and negative reactions. Use the back of this page if you need more space.

SELF-EVALUATION BY TEACHERS IN PROJECT

Teacher _____ Date _____

One objective of the State Study is to increase teacher confidence and competence in teaching gifted children. We would, therefore, like your subjective evaluation on your current feelings in this area.

Please evaluate yourself on the following items, using *a, b, c, d* according to the sacle below.

(a) Diminishing
(b) About the same
(c) Increasing
(d) Marked increase

1. Strength and skill as a teacher . . . . . ____
2. Knowledge of subject areas . . . . . ____
3. Appreciation of "gifted" pupils . . . . . ____
4. Enthusiasm for your particular classroom plan in the State Study . ____

If no reaction, leave blank.

1. What changes would you suggest in your particular educational plan? Why?

_____
_____
_____
_____

2. in your opinion, what are the values of your particular plan in the State program?

_____
_____
_____

3. How has participation in the State Study helped you?

_____
_____
_____

4. List any problems created by your participation in the State Study.

_____
_____
_____

From: Simpson, R. E., & Martinson, R. A. *Educational Program for Gifted Pupils.* Sacramento, California: California State Department of Education, 1961.

TEACHER'S APPRASIAL OF CREATIVE PROBLEM SOLVING LESSON

Demonstrator _____ School _____ Observer _____

Date _____ Room Number _____ Grade Level _____

PLEASE INDICATE WITH AN X THE EXTENT TO WHICH YOU AGREE WITH EACH OF THE FOLLOWING STATEMENTS.

	Unable to Observe	Little	Somewhat	Much	A great deal
1. Do you think a problem was structured so as to lead to the discovery of a new concept or understanding?	___	___	___	___	___
2. Were you able to observe a diversity of pupil responses in the initial stages of the problem?	___	___	___	___	___
3. To what extent do you feel that the pupils drew upon personal past experiences to solve the problem?	___	___	___	___	___
4. To what extent do you think the teacher "structured" the discussion?	___	___	___	___	___
5. Do you feel the pupils understood that there is always more than one answer or way to arriving at the solution to a problem?	___	___	___	___	___
6. Was a classroom climate established whereby each pupil would feel free to contribute to the class discussion?	___	___	___	___	___
7. Did pupils contribute most of the information and ideas that were necessary to arrive at a solution to the problem?	___	___	___	___	___
8. Did pupils discover meaningful new relationships between the information and ideas they contributed to the problem?	___	___	___	___	___
9. Were the pupils allowed and encouraged to react to other pupil's responses?	___	___	___	___	___
10. Did pupils vie with each other to answer questions?	___	___	___	___	___
11. Do you feel the majority of the pupils "learned" the concept?	___	___	___	___	___

12. Write any comments you may have concerning the demonstration lesson.

_____

_____

_____

From: Chicago Public Schools. *In-Service Training Program for the Promotion of Creative Problem-solving* (Second Revised Edition).

CLASS BEHAVIOR OBSERVATION CHECKLIST

Teacher's Name _____ Room No. _____ Grade _____

School _____ Date _____

THE FOLLOWING QUESTIONS HAVE ONE OR MORE ANSWERS. PLEASE CHECK THE ANSWER(S) WHICH BEST DESCRIBE CLASS' BEHAVIOR.

1. In leading your class through the beginning stages of a creative problem-solving activity, were you able to:

____ A. present the problem to the class and note their reactions.

____ B. demonstrate the value of divergent views of the same problem by deliberately provoking disagreements.

____ C. accept novel and unconventional solutions in an attempt to get as many solutions as possible.

____ D. encourage group agreement, but still permit unusual responses if they were pertinent to the problem.

____ E. encourage group agreement, on the description or perception of the problem.

____ F. Other. Explain _____

_____

2. If a pupil response was unclear or definitely unrelated did you:

____ A. clarify the pupil's response.

____ B. ask the pupil to clarify it.

____ C. ask another pupil to clarify it.

____ D. simply acknowledge the response and go on.

____ E. ignore the response and go on.

____ F. Other. Explain. _____

_____

3. Did you direct the class toward unity in defining and stating the problem by:

____ A. utilizing praise to obtain the desired response.

____ B. insisting that the class pay attention to *all* the evidence.

____ C. pointing out overlooked evidence until one or more pupils offered a logical, consistent explanation of the problem.

____ D. Other. Explain. _____

_____

4. Were you able to prevent all or part of the class from forming a premature opinion or from adopting one child's opinion by:

____ A. not permitting any one child or yourself to dominate the discussion.

____ B. encouraging group uncertainty and group interactions.

____ C. encouraging as many responses as possible from as many pupils as possible.

____ D. Other. Explain. _____

_____

From: Chicago Public Schools. *In-Service Training Program for the Promotion of Creative Problem-Solving* (second Revised Edition.)

5. Most groups have one or two children who do most of the answering. Were you able to get different pupils to respond to the problem by:

____ A. encouraging a child even if he was on the wrong track?

____ B. relating the problem to the children's own background.

____ C. deliberately calling on the non-contributing members of the class.

____ D. giving up, realizing that all pupils cannot contribute at all times, or that each group has its leader.

____ E. Other. Explain. _____

_____

6. Were you able to get the children to see how the new concept related to their personal lives by:

____ A. pointing out the concept's relationship to their daily lives.

____ B. asking pupils to find the concept's relationship to their daily lives.

____ C. giving up, realizing that some knowledge is "booklearning," unrelated to daily lives.

____ D. Other. Explain. _____

_____

7. Were you able to get the children to examine each other's ideas and yours by:

____ A. pointing out to them that an idea which has been held true for a long time is sometimes erroneous in light of new information.

____ B. pointing out that no one person can know everything.

____ C. Other. Explain. _____

_____

OCEAN VIEW SCHOOL DISTRICT
MENTALLY GIFTED MINOR PROGRAM
END-OF-YEAR EVALUATION

(To be filled out by May 31, 1974. Copy to be sent to the District MGM Coordinator, Area Administrator's Office.)

_____ _____ _____ _____
School Date Principal or MGM Coordinator

This evaluation instrument is designed to be an action-planning instrument for program improvement. If your answer to a question is "yes", plan in your school's next year's educational plan how to do an even better job. If your answer is "no", and your school believes the idea to be a good one, put the idea in your next year's educational plan for implementation.

1. Does your school have an MGM Coordinator(s) appointed by the principal?

   _____ Yes _____ No

2. Do you include the MGM Program in your school's educational plan?

   _____ Yes _____ No

3. Is there a written description of your school's MGM Program?

   _____ Yes _____ No

4. Does your school have an MGM program evaluation and program improvement committee made up of staff and/or parents that meets at least periodically?

   _____ Yes _____ No

5. Do you send out a notice at the beginning of each semester asking for teacher referrals on potentially gifted students so that they can be screened for the MGM Program?

   _____ Yes _____ No

6. Do you include with this notice the district's guide sheet to assist the teachers in identification of students to be referred for screening?

   _____ Yes _____ No

7. Is each student admitted to the program approved by the Admissions and Dismissal Committees?

   _____ Yes _____ No

8. Does your Admissions and Discharge Committee evaluate and recommend placement for each MGM Student at the end of each year?

   _____ Yes _____ No

From: Ocean View School District, Huntington Beach, California.

9. Does your Admissions and Discharge Committee know that once an MGM youngster is identified a program *must* be created to meet his/her needs? (An MGM youngster cannot be removed from the program without a signed parent approval letter to accompany his discharge.)

_____ Yes _____ No

School E
Form Five

PROJECT DIRECTOR QUESTIONNAIRE

The following questions may be answered jointly by the project director and other administrators if desired.

I. On a separate page, briefly describe the history of the Gifted Project in School E. Use any sources you believe to be pertinent, e.g., school board minutes, newspaper articles, financial records, final reports.

II. Write a statement of the goals and rationale for the Gifted Project.

From: Sjogren, D., Hopkins, T., & Gooler, D. *Evaluation Plans and Instruments: Illustrative cases of Gifted Program Evaluation Techniques.* Center for Instructional Research and Curriculum Evaluation. Urbana-Champaign: University of Illinois.

III. What office space, storage, and classroom space were provided for the project?

IV. What administrative activities preceded the implementation of the program after the funds were available? e.g., recruitment of teachers, scheduling, presentation to staff. (This question might be answered by an outline of steps taken.)

V. a) Briefly describe the rationale for selecting teachers for the program.

b) What types of problems were encountered in the selection process?

VI. Describe any adjustments made in teaching and administrative loads for the Gifted Project staff.

VII. Describe the provisions for the project staff to work together.

VIII. List the ways in which the concepts of the Gifted Program have been presented to others (staff, community, school board, students, etc.)

IX. List any situations which you have observed that would reflect either opposition to, or support for the Gifted Program.

X. Training, for the teaching of the gifted, which has been available to teachers.

Title of course or workshop	Sponsored by	Staff who attended	Dates	Length of training

XI. List other teachers who have expressed an interest in this project. In a few words describe their interest, e.g., want to teach, want to attend a workshop, have assisted the staff.

XII. Does the Gifted Program require any special scheduling procedures?

Yes _____ No _____

If "Yes," briefly describe.

XIII. Provide a copy of the school schedule.

Evaluation Team

Staff Form
Rev. 7/73

_____(Team Reporter)

_____ Date of Visitation_____

_____

_____

GIFTED PROGRAM – FIELD EVALUATION

Program Title_____ Program Number_____

Program Site_____ Dist._____ Area_____

Contact_____ Phone_____

Teacher_____ _____

Starting date of Program_____ Number of Students by grade_____

PROGRAM DESCRIPTION	OK	PROBLEM	DID NOT OBSERVE
1. Are the depth and focus of activities in the program generally such that they meet the special needs of gifted children?			
2. Are children placed out of certain aspects of the regular program as a consequence of gifted program participation?			
3. Are the program's activities compatible with the program's objectives?			
PROGRAM IDENTIFICATION 4. Do the identification procedures correspond to those stated in the current proposal?			
5. Is student identification based primarily on objective data?			
PROGRAM MECHANICS 6. Does the number of students in the program approximate the number of students stated in the current proposal?			
7. Are the students involved in the program at least 150 minutes per week?			
8. Does the program allow for an amount of student participation in setting objectives, planning activities, and evaluation progress?			
9. Is the interaction between teacher and students generally appropriate to the program objectives?			

From: State of Illinois Gifted Program, Office of the Superintendent of Public Instruction, Springfield, Illinois.

	OK	PROBLEM	DID NOT OBSERVE
10. Does student involvement in the program activities seem generally to be high?			
11. Are special counseling and/or guidance provisions made available to all students in the gifted program?			
PROGRAM EVALUATION 12. Is a systematic plan of evaluation being used to assess the program?			
13. Does the evaluation include measuring program objectives with respect to pupil growth?			
14. Does the evaluation provide necessary information to assess the effectiveness of the program?			
PROGRAM ADMINISTRATION 15. Were the teachers in the program involved in developing the current proposal?			
16. Do the teachers in the program have copies of the current proposal?			
17. Are materials and services being purchased necessary to the activities which comprise the program?			
18. Do the teachers in the program have access to all materials purchased specifically for the program?			
19. Are program funds being utilized mainly for program development rather than program maintenance?			
20. Is budget record kept of current balance?			
21. Are teachers aware of balance of funds allocated and deadlines for submission of requisitions?			
22. Do school clerks have special ordering instructions for materials and services for gifted programs?			
PROGRAM SERVICES 23. Are materials and services ordered for the program received within a reasonable length of time?			
24. Are you receiving the services and consultive help necessary to assist you in implementing your program?			

25. Indicate in which of the following areas you would like to receive additional assistance from the Gifted Program staff, such as:

____ Identification of gifted children

____ Developing program objectives in behavioral terms

____ Program evaluation

____ Teaching strategies

Other: _____

EVALUATOR'S AUDIT SUMMARY

(Include explanation for any item checked "problem")

EVALUATOR'S RECOMMENDATIONS (Please number)	FOLLOW-UP ACTION

Copies to:

_____

_____

_____

_____

_____

(Team Reporter - Signature)

GOVERNOR'S HONORS PROGRAM INSTRUCTOR FOLLOW-UP QUESTIONNAIRE

The Governor's Honors Program is a relatively high-cost project serving only a limited proportion of the high school students in the state of Georgia. For this reason the Governor and members of the State Department of Education are concerned that the program be maximally effective. Since you have participated in the program as a staff member, your opinion about the program would be most valuable in our current evaluation of the program and, in turn, to state officials in making decisions concerning the program. Your cooperation in filling out the questionnaire, making helpful suggestions, and returning it in the enclosed envelope will be greatly appreciated.

Sex: ____ M ____ F Years of Experience ____

1. What year(s) were you a staff member of the Governor's Honors Program? 19_____

2. Check your teaching or specialization area.

____ 1. Art	____ 7. Science
____ 2. Drama	____ 8. Social Science
____ 3. English	____ 9. Physical Education
____ 4. Foreign Language	____ 10. Counseling
____ 5. Mathematics	____ 11. Other ____ Area_____
____ 6. Music	

Following is a list of factors which are important in effective operation of the Governor's Honors Program. You are asked to rate the program on each of the factors by checking one of the spaces at the right of each statement. Use what you would consider as the ideal program as a standard of excellence in making your ratings.

If the program was EXTREMELY POOR with respect to the factor, check space 1.

If the program was BELOW AVERAGE, with respect to the factor, check space 2.

If the program was ACCEPTABLE, with respect to the factor, check space 3.

If the program was ABOVE AVERAGE, with respect to the factor, check space 4.

If the program was EXCELLENT, with respect to the factor, check space 5.

Following each rating is a space you might use to suggest changes related to the factor which you think would improve the program, or to describe various influences.

3. Value of overall objective of the program 1__ 2__ 3__ 4__ 5__

   Suggested Changes:

From: Payne, D. A. *Evaluation of the State of Georgia's Governor's Honors Program.* Athens: University of Georgia, 1972.

	Extremely Poor	Below Average	Acceptable	Above Average	Excellent
4. Accomplishment of your own instructional objectives as a staff member	1	2	3	4	5
Suggested Changes:					
5. Suitability of the methods by which students are selected to participate in the program	1	2	3	4	5
Suggested Changes:					
6. Suitability of your instructional methods for GHP students	1	2	3	4	5
Suggested Changes:					
7. Degree to which the program enabled you to make contributions to or initiate changes in your local school program	1	2	3	4	5
Suggested Changes:					
8. Contributions of program toward making a positive change in student attitude toward learning.	1	2	3	4	5
Suggested Changes:					
9. Suitability of facilities and equipment available for teaching GHP students	1	2	3	4	5
Suggested Changes:					

	Extremely Poor	Below Average	Acceptable	Above Average	Excellent
10. Influence of facilities and equipment availability on effective teaching of GHP students Ratio of Influence:	1__	2__	3__	4__	5__
11. Influence of program on changes in your instructional methods during the program Ratio of Influence:	1__	2__	3__	4__	5__
12. Your ability to maintain an ideal classroom atmosphere for GHP students Suggested Changes:	1__	2__	3__	4__	5__
13. Influence of GHP on your local selection of subject matter content Suggested Changes:	1__	2__	3__	4__	5__
14. Influence of program in making significant change in your instructional method upon returning to your local situation Ratio of GHP Influence:	1__	2__	3__	4__	5__
15. The effectiveness of the administration of the program Suggested Changes:	1__	2__	3__	4__	5__
16. The effectiveness of the organization of the program Suggested Changes:	1__	2__	3__	4__	5__

	Extremely Poor	Below Average	Acceptable	Above Average	Excellent
17. The degree to which your experience as a GHP staff member influenced you to have a more positive attitude toward gifted students Suggested Changes:	1__	2__	3__	4__	5__
18. Usefulness of special events (speakers, concerts, etc.) Suggested Changes:	1__	2__	3__	4__	5__
19. Usefulness of the seminars Suggested Changes:	1__	2__	3__	4__	5__
20. Opportunity for students to interact with each other Suggested Changes:	1__	2__	3__	4__	5__
21. Opportunity for students to interact with teachers Suggested Changes:	1__	2__	3__	4__	5__
22. Student perception of overall value of GHP Reasons:	1__	2__	3__	4__	5__

23. What two things do you think are most beneficial about the program?

24. What two things were least beneficial or in the greatest need of change with regard to the program?

Additional Comments:

GOVERNOR'S HONORS PROGRAM PARTICIPANT FOLLOW-UP QUESTIONNAIRE

The Governor's Honors Program is a relatively high-cost project serving a limited proportion of the high school students in the state of Georgia. For this reason the Governor, State Superintendent of Schools, GHP personnel, and members of the State Department of Education are concerned that the program be maximally effective. Since you are a former participant in the program, your opinion about the program would be most valuable in our current evaluation of the program and, in turn, to state officials in making decisions concerning the program. Your cooperation in filling out the questionnaire, making helpful suggestions, and returning it in the enclosed envelope will be greatly appreciated.

Sex: ____ M ____ F Age: ____

1. What year did you attend the Governor's Honors Program? 19____
2. Check your area of nomination

1. Art ____	5. Mathematics ____
2. Drama ____	6. Music ____
3. English ____	7. Science ____
4. Foreign Language ____	8. Social Science ____

3. Check the statement(s) which is (are) applicable to you

____ 01. I am still attending high school.

____ 02. I have been graduated from high school, but have not attended and do not plan to attend college.

____ 03. I attended college but did not obtain a bachelor's degree.

____ 04. I am currently attending college working toward a professional (bachelor's) degree.

____ 05. I am currently attending a non academic school or college working toward a technical profession.

____ 06. I currently hold a bachelor's degree.

____ 07. I currently hold a degree from a technical institution. Type of degree _____

____ 08. I am currently pursuing a graduate degree. Type of degree _____

____ 09. I currently hold a graduate degree. Type of degree _____

____ 10. I am currently employed (full time). Type of work _____

Following is a list of factors which are important in effective operation of the Governor's Program. You are asked to rate the program on each of the factors by checking one of the spaces at the right of each statement. Use what you would consider as the ideal program as a standard of excellence in making your ratings.

From: Payne, D. A. *Evaluation of the State of Georgia's Governor's Honors Program.* Athens: University of Georgia, 1972.

If the program was EXTREMELY POOR with respect to the factor, check space 1.

If the program was BELOW AVERAGE with respect to the factor, check space 2.

If the program was ACCEPTABLE with respect to the factor, check space 3.

If the program was ABOVE AVERAGE with respect to the factor, check space 4.

If the program was EXCELLENT with respect to the factor, check space 5.

Following each rating is space you might use to suggest changes related to the factor which you think would improve the program, or allow you to describe influences.

	Extremely Poor	Below Average	Acceptable	Above Average	Excellent
4. The degree to which the program was beneficial in your subsequent academic course selection	1__	2__	3__	4__	5__
Describe Nature of GHP Influence:					
5. The degree to which the program influenced your decision to attend college	1__	2__	3__	4__	5__
Describe Nature of GHP Influence:					
6. The degree to which the program was beneficial in helping you choose a college major (Omit, if you did not attend college)	1__	2__	3__	4__	5__
Describe Nature of GHP Influence:					
7. The degree to which the program was beneficial in helping you choose a vocation	1__	2__	3__	4__	5__
Describe Nature of GHP Influence:					

	Extremely Poor	Below Average	Acceptable	Above Average	Excellent
8. Suitability of the method or methods by which participants were selected	1	2	3	4	5
Suggested Changes (e.g., what criteria should be employed.):					
9. Suitability of the instructional methods for GHP students	1	2	3	4	5
Suggested Changes:					
10. Appropriateness of the administration of the program	1	2	3	4	5
Suggested Changes:					
11. Influence which the program had on your ability to make contributions to or initiate changes in your local school program	1	2	3	4	5
Suggested changes in the program which would have enabled you to more effectively initiate changes in or make contributions to your local school program:					
12. Contributions the program made toward a positive change in your attitude toward learning	1	2	3	4	5
Nature of GHP Influence:					
13. Helpfulness of the counseling program	1	2	3	4	5
Suggested Changes:					

	Extremely Poor	Below Average	Acceptable	Above Average	Excellent
14. Effectiveness of the physical education program in teaching you games or other recreational activities which you did not have the opportunity to learn in your high school	1	2	3	4	5
Suggested Changes:					
15. Usefulness of the seminars	1	2	3	4	5
Suggested Changes:					
16. Usefulness of special events (speakers, concerts, etc.)	1	2	3	4	5
Suggested Changes:					
17. Opportunity for interaction with other students	1	2	3	4	5
Suggested Changes:					
18. Opportunity for interaction with teachers	1	2	3	4	5
Suggested Changes:					
19. Your overall rating of the program in terms of fulfilling your immediate needs at the time you participated	1	2	3	4	5
Suggested Changes:					

	Extremely Poor	Below Average	Acceptable	Above Average	Excellent
20. Overall rating of the program in terms of fulfilling your ultimate goals	1__	2__	3__	4__	5__

Suggested Changes:

21. Degree to which the program objectives were in agreement with your personal objectives 1__ 2__ 3__ 4__ 5__

Suggested Changes:

22. Extent to which you mastered the objectives of the program 1__ 2__ 3__ 4__ 5__

Suggested Changes:

23. Extent to which the program contributed to your mastery of the program objectives 1__ 2__ 3__ 4__ 5__

Suggested Changes:

24. What two things were most beneficial about the program?

25. What two things were least beneficial or in the greatest need of change with regard to the program?

26. What Honors, Awards, Scholarships, Fellowship Grants, or Special Recognitions have you received since you were a GHP participant?

MOVEMENT EDUCATION ACTIVITIES LOG

Name _____ School _____

Type(s) of Students _____ Age Range _____

Number of students in your group _____

Directions: The purpose of this LOG is to provide a record of (1) the types of Movement Education Activities that you are conducting with your class, (2) the frequency with which such activities are pursued, and (3) the students' general reaction to each activity. We hope that the LOGS will give us some direction in providing future workshops that are designed for various types of exceptional children, and therefore, it is important for all LOGS to be kept consistently and conscientiously.

Please, keep your LOG up-to-date and try to provide a *descriptive* name for each type of activity in which you engage. If the "General Reaction of Students" is mixed, please, indicate this in the "Comments" section.

If you have a record or rough idea of activities that were pursued prior to receiving the LOG, please list the activities according to your best recollection. The LOGS will be collected during the Spring of 1974 and, at that time, we will ask you to summarize the general areas of positive and negative reactions.

From: Renzulli, J. S., & Ford, B. G. *Movement Education for Handicapped Children.* Storrs: The University of Conneticut, 1974.

Name _____ School _____ Date _____

General Reaction of Students
(Check one)

Date	Type of Activity	Enthusiastic	Interested	Passive	Uninterested	Resistant	Comments

Appendix E

Sample Evaluation Contract

CONTRACT FOR PROFESSIONAL SERVICES
BETWEEN

_____

AND

_____

THIS AGREEMENT made by and between the City of _____
_____, hereinafter designated as the City and _____, hereinafter designated as the Evaluator.

ARTICLE 1

Description of Services to Be Performed. The Evaluator shall upon the basis of his training and experience enter upon the elementary and/or secondary level of the _____ Public School System and more particularly at the following schools and/or Programs:

and conduct a survey, analysis, and study of the same in action in order to evaluate and assess the efficiency and productivity of same in action, and upon the completion of the said survey, study, and analysis, to file with _____
_____
a comprehensive and detailed written report thereon in _____
_____( ) copies, setting forth the results, conclusions, and findings thereon together with comprehensive recommendations in respect thereto.

ARTICLE 2

Information to be Furnished by City. The City shall furnish to the Evaluator whatever information, data, and statistics are in its possession which may be useful to the Evaluator in carrying out his survey under this contract.

ARTICLE 3

Time for Commencement and Completion of Services. The Evaluator shall commence his services under this agreement forthwith upon the acceptance of this contract by the City and shall complete his services and file his final report not later than thirty (30) calendar days after the termination date of the contract. Progress reports shall be submitted every _____ days and cover completely all the services performed since the date of the last progress report. Upon receipt of the final report, the Evaluator shall be required to amplify in writing any phase of the report which may not, in the opinion of _____
_____

be sufficiently comprehensive. The Evaluator and the City shall perform their respective activities and responsibilities in accordance with the dates outlined in the attached Statement of Responsibilities.

ARTICLE 4

Compensation to Be Paid by the City. It is expressly agreed and understood by the parties hereto that in no event shall the City pay the Evaluator as full compensation for everything furnished or done by or resulting to the Evaluator in carrying out this agreement a total sum in excess of $_____

The Evaluator shall also be reimbursed for "travel expenses" if previously authorized in writing, up to the maximum amount of $_____

ARTICLE 5

Time for Payment to Evaluator. Application for payment shall be made in accordance with the attached work phase and Payment Schedule. Each application shall show the name of the Evaluator and/or his employees engaged in the study, the number of hours (or days) worked, and his (or their) total wages at the contract rate(s), such abstract to be sworn to by the Evaluator.

ARTICLE 6

Discontinuance of Service. The contract may be terminated by either party at any time by a notice in writing duly mailed or delivered by one party to the other. In the event of contract termination, Evaluator will be paid in accordance with Article 4 for all of his services duly performed up to the date of discontinuance.

ARTICLE 7

Laws and Regulations. This contract is subject to all laws of the State of _____, applicable to the administration of public schools and likewise to all Rules and Regulations of the School Committee of the City of _____, as amended to date. A copy of the aforesaid Rules and Regulations is on file in the office of the Secretary of the School Committee.

ARTICLE 8

Final Release. In consideration of the execution of this contract by the City, the Evaluator agrees that, simultaneously with the acceptance of what the City tenders as the final payment by it under this contract, Evaluator will execute and deliver to the City an instrument under seal releasing and forever discharging the City of and from any and all claims, demands, and liabilities whatsoever of every name and nature, both at law and in equity, arising from, growing out of, or in any way connected with this contract, save only such claims, demands, and liabilities as are expressly excepted in said instrument.

ARTICLE 9

Assignment. Neither the School Committee nor the Evaluator shall assign or transfer the respective interests in this contract without the prior written consent of the other.

_____

Evaluator

_____

Title: (If corporation affix seal)

Approved:

_____

Business Manager

Accepted: _____ 19____

THE SCHOOL COMMITTEE OF THE CITY OF

_____

_____

Chairman of the School Committee

STATEMENT OF RESPONSIBILITIES

The Evaluator and the City will perform their respective activities and responsibilities in accordance with the following Statement of Responsibilities:

	City	Evaluator
1. Management of the Project	Responsible	———
2. Determine and Write Objectives	Responsible	Consult
3. Select Evaluative Criteria	Responsible	Consult
4. Select and Construct Measuring Instruments		
a. Standardized Instruments	Suggest	Responsible
b. Questionnaires and Rating Scales	Suggest	Responsible
c. Teacher-made Instruments	Responsible	Propose, advise and confirm
d. Interview Schedules	Suggest	Responsible
5. Purchase Instruments	Responsible	Consult
6. Administer Instruments	Responsible	Monitor and Train
7. Conduct Interviews	Arrange	Responsible
8. Score Instruments		
a. Standardized Instruments	Responsible	Consult
b. Questionnaires and Rating Scales	———	Responsible
c. Teacher-made Instruments	Responsible	Consult
9. Data Tabulation, Summary and Analysis	———	Responsible
10. Report Results and Conclusions, Make Recommendations	Advise	Responsible
11. Integration of Evaluation Report into Final Report	Responsible	Consult

WORK PHASE AND PAYMENT SCHEDULE

The Evaluator and the City will perform their respective activities in accordance with the following schedule:

Phase I July 1, 19____ to October 31, 19____

1. The Evaluator collaborates with the City and project staff in determining the overall evaluative design and the plan for implementing the design.
2. The City formulates general, intermediate, and specific behavioral objectives which will be submitted to the Evaluator for review.
3. The Evaluator proposes, advises, and confirms the selection of evaluative instruments.
4. The Evaluator submits to the City a complete evaluation design.
5. Selected pre-project instruments are administered by the City.
6. The Evaluator gathers input information for questionnaire and rating scale design.
7. The Evaluator pre-trains interviewers and project staff in gathering evaluative data relevant to their respective responsibilities.
8. Payment due October 31, 19____ $_____

Phase II November 1, 19____ to January 31, 19____

1. As the program evolves, the City continues to formulate objectives and the Evaluator assists teachers in the construction of evaluative instruments.
2. The Evaluator prepares questionnaires, rating scales and interview schedules; gathers and analyzes data; and provides periodic feedback to the City.
3. The Evaluator tabulates and summarizes pre-project data for statistical analysis.
4. Payment due January 31, 19____ $_____

Phase III February 1, 19____ to April 30, 19____

1. Steps 1 and 2 in Phase II are repeated.
2. Evaluator prepares end-of-project (summative), evaluates instruments.
3. Payment due April 30, 19____ $_____

Phase IV May 1, 19____ to June 30, 19____

1. City administers summative evaluative instruments.
2. Evaluator tabulates, summarizes, and analyzes evaluative data.
3. Evaluator collaborates with City on writing the final report.
4. The Evaluator submits an evaluation report to the City.
5. Payment due June 30, 19____ $_____

Title VI of the Civil Rights Act of 1964 states:

"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, or denied the benefit of, or be subjected to discrimination under any program or activity receiving federal financial assistance."

Therefore, EPDA programs must be operated in compliance with this law.